NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

VOL. VII. BOSTON, DECEMBER, 1855. NO. 12.

JOEL NOURSE, PROPRIETOR, OFFICE....QUINCY HALL. SIMON BROWN, EDITOR. FRED'K HOLBROOK, HENRY F. FRENCH, } ASSOCIATE EDITORS.

CALENDAR FOR DECEMBER.

"Hoary, and dim, and bare, and shivering,
Like a poor almsman comes the aged Year,
What kind 'God save you all, good gentlefolks!'
Heap on fresh fuel, make a blazing fire.
Bring out the cup of kindness, spread the board,
And gladden Winter with our cheerfulness!
Welcome! To you, and yours, and all! All health!"

Lay of a Twelvemonth.

DECEMBER closes the circle of *the Months*—each has appeared in its turn, bringing its peculiar appearances, and influences, and appropriate duties,—each in its own way carrying forward the great work of reproduction, to sustain the teeming population of the earth; and though so different in their character, they are equally essential in their relation to the whole, having a mutual office to perform which must fail without a perfect union and harmony of purpose.

But the change is striking. The green meadows and leaves were followed by our gorgeous autumnal foliage, with its innumerable tints gleaming in the sun, and the thousand varying hues of the low shrubbery, the darker red and purple, or the brighter orange of the shrubs under the walls and fences, or scattered among the undergrowth of the forest. And still another change has come; all these, late so beautiful, have disappeared. The noble forest is stripped of its summer dress, and its showy, yet fading, autumnal vestment, and stands bare in stern grandeur, indifferent to all the assaults of Winter. The graceful elm or drooping willow, the noble oak and ash and the symmetrical maple, have all yielded to the common law—have cast their no longer useful leaves, and now stand unincumbered to resist the shocks of northern blasts, or to reject the accumulating snows which would otherwise rest upon and crush them to the earth. "Now, denuded of their gay attire, they spread forth their thousand branches against the gray sky, and present as endless a variety of form and feature for study and observation, as they did when dressed in all the flaunting fashions of midsummer. Singly, the fruit trees, as trees, have little beauty—but clustering in the orchard, they partially atone for the desolation around them, and prevent the whole landscape from being blank. On a closer examination, their bloom-buds, which the late leaves of autumn, had concealed from the view, stand confessed, upon the otherwise bare branches, and, dressed, in their patent wind-and-water-proof coats, brave the utmost severity of the season,—their hard unpromising outsides, compared with the forms of beauty which they contain, reminding us of their friends, the butterflies, when in the chrysalis state." Now the fields are brown and sere, the hills are deserted of oxen and sheep and milch-kine, and look rusty and dull and forsaken. Now the low meadows reveal by their bright red leaves and stems, the cranberry patches dotted here and there through their whole extent, and giving those usually disagreeable grounds an attractiveness which they do not possess at any other period of the year.

Then THE GARDEN, blank and dreary and dismal as the landscape generally is, The Garden, must not be forgotten, for Nature does not forget it. "Though the gardener can find little to do in it, *she* is ever at work there, and ever with a wise hand, and graceful as wise. The wintry winds of November having shaken down the last lingering leaves from the trees, the final labor of the gardener was employed in making all trim and clean; in turning up the dark earth, to give it air; pruning off the superfluous produce of summer, and gathering away the worn-out attire that the perennial flowers leave behind them, when they sink into the earth to seek their winter home." In the garden

young pear trees, plums, quinces, and various shrubs, are clustering about each other, and seem to have a mutual understanding that they will resist the Winter together like a company of friends in adversity, who will support and encourage one other to the last. Sometimes, if the snows have not come, and the sun looks kindly into the garden, a bright Pansy may be seen even in DECEMBER, half-hidden under a friendly leaf, but peeping out into the world at mid-day; or a few Chrysanthemums may still linger, their various-colored stars looking like faded imitations of the gay, glaring China-aster. Here, too, may flit a bird, lingering too long in his summer home, or perchance one from higher regions north, the pioneer of thousands yet to come. The currant and gooseberry bushes, the climbing plants, the raspberry canes, bending their long tops gracefully to the earth, with the edges of box along the paths, and here and there the arbor vitæ, the pine, fir or spruce breaking the north winds and sheltering the more tender plants, give the garden an aspect of warmth and attractiveness, amid the general decay which prevails on the farm.

DECEMBER is a merry Month, after all. Dreary fields, bare forests, cold and snow and winds only compel us to seek within, the enjoyments which the Summer presented to us from without. So we find the heart *turning to itself* for a compensation for what it has lost in the wonderful drapery of the earth, in soft winds, refreshing showers, singing birds, and the joy manifested in the summer season by all animated creation. Now we have a comparative exemption from labor, bright fires and cheerful hearths; gathered households and happy reunions, weddings, and the delightful contemplation of full granaries and cellars and barns, and the hope that all the dear ones entrusted to our care may share in the products of the farm, so bountifully provided by Him who never fails to pour into the lap of honest Industry a due reward.

This has been so in all time, and it is curious to observe what a wonderful power man has to create, as it were, by turning to himself, a compensation for that which is lost by the operations of nature, and over which he has no control. So December *is* a merry month—having its merry meetings throughout our land, and its "Wish you merry Christmas," on every tongue. In describing the customs of the people, English history is full of interesting accounts of their enjoyments in December, and what is remarkable, and what it would be well for us to imitate, their ceremonies and happy gatherings were always in reference to the Harvest, and their expressions of gratitude were mingled in their games and diversions of every kind. They had foot-balls, matches, races, dancing, wrestling, climbing, singing and story-telling. Matches were made and maidens were married, and those who had no "gay Lothario" to call their own, would sometimes indulge in attempting to divine the name of the man they were to marry, in various ways, One was for the girls to go to the wood-pile, and each draw a faggot-stick; if the stick was straight and nice, then the future husband would be good-tempered and kind, but if the stick were crooked, then the husband would be a "hard customer," and lead them a crooked life.

Old Barnaby Googe renders this account into metre, and it may be interesting to some of our unmarried readers to see it, and is as follows:—

"Unto some woodstacke do they go,
and while they there do stande
Eche one draws out a faggot sticke
the next that comes to hande,
Which if it straight and even be,
and have no knots at all,
A gentle husband then they thinke,
shall surely to them fall.
But if it foulle and crooked be,
and knotted here and theare,
A crabbed, churlish husband then,
they earnestly do feare."

So they had many similar festivals in France, which were abrogated by the revolution, but revived by Buonaparte, he appreciating the influence of such customs upon the people.

Our Initial Letter, at the head of this article, indicates something of the old customs. The Harvest is gathered—all the gods of the Seasons have smiled upon us, Ceres, Pomona and old Cybele herself—so that our garners are full, and here they are being presented, perhaps by some of the goddesses themselves, after having exhausted all the mysteries of the culinary art in their preparation. Come, then, to the feast, earned by your Industry and Skill. Welcome, December, storm and bluster as you will, come with snow and hail and cimmerian darkness, if you please, you cannot touch the cheerful hearts that have gathered the Harvest and spread this bountiful board. With our thanks first to the Giver of the Sunshine and the Rain, and next to the willing and efficient partners of our toil, we gladly sing out the last days of the Old Year, and trustfully await the advent of the New.

As we have intimated above, the engagements of the farmer are not now so pressing as in some of the other months, but still, work may always be found, and one important item is in regard to the

MANURE HEAPS.—As, in our climate, planting time is short, every thing should be done that may be, to favor the labor of that period. All the manure that can be got at, should be removed to the fields where wanted. While severe frost prevails, it will not be injured by the sun and air, and as soon as the surface of the earth around the heap is thawed, the heap may be covered. Hauling manure in the spring, when it is wet and heavy, and when the roads and fields are easily cut up, when plow-

ing, harrowing, sowing, &c., are all pressing, is a great drawback upon the spring work. Make muck heaps in your fields in December, draw the manure to them, and as often as the frost will permit, mingle them; the muck will absorb the gases from the decomposing manure, while the muck itself will undergo valuable changes from the air and rain, and frost, and make that an important fertilizer.

FARM IMPLEMENTS—should all be put in perfect order, ready for use in the spring; if any need painting, a coat applied now will get hardened through the winter, and thus last twice as long as when applied just before the implement is wanted for use. Every thing of the kind should be placed under cover.

ACCOUNTS.—Do not suffer any account to remain unsettled through the month of January. If it cannot be paid, look it over and settle it, so that no questions shall arise upon it afterwards. Keep a cash book. Every one will find it gratifying at the end of the year to know what amount of money he has received, what for, and for what he has paid it out. It is a very simple matter, and requires but little time.

SHEEP—should not be allowed to find a living in the pastures too late; some persons suffer them to run until snow covers the ground, without feeding them. Sheep kept in this manner shrink rapidly, and it is difficult to bring them up in flesh again through the whole winter. It is cheaper, and every way better, to keep all our domestic animals in good condition.

POULTRY.—It is unprofitable to winter old hens; if such were not marketed in August or September, when they were worth double what they are now, fat them as rapidly as possible, and put them in the pot. When the ground is covered with snow, see that your fowls are provided with plenty of gravel, lime, pounded bones, or oyster shells, and occasionally with scraps, or fresh meat.

SCHOOLS.—Every good farmer will take a decided interest in the schools of his town, to see that the building is comfortable and convenient; that a competent, good-dispositioned and faithful teacher is employed, and *fairly remunerated*; to see that all may attend who desire to, and occasionally look in upon the school himself.

WINTER EVENINGS.—Attending Lyceum and the Farmers' Club will occupy two. What is to be done in the other four? Have you read several excellent works that relate particularly to your business? Youatt and Martin on Cattle; and Youatt on the horse, hog and sheep; the American Muck Book, and Dana's Muck Manual; the Complete Farmer and American Gardener, by Fessenden; Johnston's Elements of Agricultural Chemistry and Geology, together with a variety of other books, which record the practice and experience of other men. A perusal of these will increase your knowledge, and enable you to pass the winter evenings pleasantly.

So we come to the close of another revolution of *The Months*, trusting that our suggestions may sometimes have been agreeable, and tending to promote the interest of those who cultivate the land.

COLLECT LEAVES FOR LITTER.

After the harvest is over, and before the snows cover the ground, a day or two spent by the farmer and his hands in collecting the fallen leaves of the forest will be productive of a good store of excellent litter, and the expenses amply repaid. A good collection of such materials is not always made in the fall by those who could do it easily. Indeed, this prudent foresight for litter with which to bed down cattle, horses, and other stock, during the winter, is not sufficiently practised among us. It not only ensures a great amount of comfort to your cattle, by giving them an easy and warm bed, but it saves, indirectly, much fodder, in consquence of the warmth thus obtained—cattle eating much less when they are kept warm and cleanly.

The leaf harvest, then, is one of importance to the farmer, if he will avail himself of it. A calm day or two spent in this business, with his boys and oxen, and hay-rack, will enable him to get together a large pile of these fallen leaves, and if stowed in a dry place, he will experience the good effects of them in the improved condition of his stock, compared with those which are suffered to lie down, and perhaps be *frozen* down, in their own filth. The fertilizing material of leaves also adds essentially to the enriching qualities of the manure heap. Gardeners prize highly a compost made in part of decomposed leaves.

As the leaf harvest is the last harvest of the year, let it be attended to when its time comes.—*Maine Farmer.*

A BAD COLD.

DR. HALL'S WAY OF TREATING IT.

A bad cold, like measles or mumps or other similar ailments, will run its course of about ten days, in spite of what may be done for it, unless remedial means are employed within forty-eight hours of its inception. Many a useful life will be spared to be increasingly useful, by *cutting a cold short off, in the following safe and simple manner.* On the first day of taking a cold, there is a very unpleasant sensation of chilliness. The moment you observe this, go to your room and *stay there;* keep it at such a temperature as will entirely prevent this chilly feeling, even if it requires a hundred degrees of Fahrenheit. In addition, put your feet in water, half leg deep, as hot as you can bear it, adding hot water from time to time for a quarter of an hour, so that the water shall be hotter when you take your feet out than when you put them in it; then dry them thoroughly, and then put on warm, thick woolen stockings, even if it be summer, for summer colds are the most dangerous; and for twenty-four hours eat not an atom of food; but drink as largely as you desire of any kind of warm teas, and at the end of that time, if not sooner, the cold will be *effectually broken, without any medicine whatever.—Me. Farmer.*

For the New England Farmer.

IMPROVEMENT IN BARNS.

Among the many and recent improvements in farming matters, none is more conspicuous than the improvement in the construction of barns.

If a stranger from some remote corner of our land, where these "new-fashioned" barns have not yet made their appearance, should travel through the country, and especially those parts of it which lie in the vicinity of the large town and cities, he would be very likely to conclude that nearly every farmer has an academy or meeting-house upon his premises; and when informed that these tasty buildings are barns, would, perhaps, show you the full dimensions of his eyes, and often exhibiting other signs of astonishment, wish to know the use of the cupolas or steeples which he saw upon their summits. And when told that the cupolas are "ventilators," would, doubtless, open his eyes still wider than before, and exclaim—"Ventilators? What good does a ventilator do upon a barn?" When we consider the manner in which barns were formerly built, we shall not so much wonder at the above question. The boards were put on without "matching" or "halving," and frequently without the use of the jointer, so that in a short time there were cracks wide and numerous enough to thoroughly ventilate the barn, and keep it *cool*, especially in the winter. And in addition to the above method of purifying the atmosphere of the barn, there was usually space enough at the top and bottom of the "great barn-doors," and sometimes between them, to throw out a stray dog without injuring him in the least. The internal part of the barn was likewise arranged in the same convenient style. The narrow "barn-floor" was laid crosswise of the barn, and generally near to one end; a "head-scaffold" covered about one-third of the length of the floor, at the end farthest from the doors; so that when a respectable sized load of hay was driven into it, if there was any hay upon the scaffolds, the load was tightly pressed on each side and the farthest end, the other being "out-doors." A part of the hay, after being jerked from the load, had to be pitched several times over, before it reached its final destination at the farthest end of the barn.

The stables, "lean-to" or byre, hen-roost, &c., were jumbled up together somewhere—the last named place being frequently in the "lean-to" over the necks of the cattle.

The barn-yard was almost invariably in front of the barn, rendering a passage to and from the barn extremely pleasant, especially in a rainy day. Digging a barn-cellar was a piece of folly which very few were guilty of committing in those days. Farmers would as soon have thought of protecting their fruit trees from the effects of the sun and air, by building sheds over them, as of preserving manure from the same *causes*,—the *effects* being different in *toto*,—by digging a cellar to receive it.

But these ill-constructed barns, although too many of them still have an existence, yet, for the most part, have disappeared, and others of a new and much improved style have arisen from their ruins.

The first thing done nowadays towards the creation of a barn, is to dig a cellar. To render the task an easier one, a site is chosen where the ground is somewhat sloping, but if this is impracticable, more digging is necessary, unless the walls of the cellar are raised considerably above the level of the land surrounding it. The excavation for the cellar having been made, it is then walled in upon the two ends and the side next to the bank; the side fronting upon the yard being left open,—although it is afterwards sometimes closed up by a wooden partition with doors and windows.

The frame of the barn is now raised over the cellar, which has been so excavated that one end of the barn will—like fashionable modern houses—front upon the road. The frame is then shingled and boarded, the boards being either "halved" or "matched," but sometimes they are fitted snugly together with the jointer only, the cracks being afterwards covered with narrow strips of boards. This last named method of putting on the boards, although objected to by some, yet, when properly done, makes the barn tight and warm; and when the boards are planed and painted, as they frequently are, gives to the barn a very neat and pretty appearance. Lengthwise, and through the centre of the barn, a space sufficiently wide has been left for a floor, or "drive-way," which can be driven into, or out of, at either end; and which, if occasion required, would contain several loads of hay at the same time, without any *pinching*; affording also, when the golden corn is gathered in, ample room for a merry "husking." The space beneath the scaffolds upon one side of the floor is occupied by the stalls, or stables for the horses and cattle; the other side being reserved for a "bay."

This arrangement of the interior compartments of the barn renders the task of unloading and mowing away hay, feeding and tending the cattle, &c., much easier and more convenient than it used to be formerly. Instead of the old-fashioned, double, loose, swinging, flapping doors, which, besides being inconvenient, rendered a passage into the barn absolutely dangerous in windy weather, unless they were securely faatened, each door, great and small, is now made single, or in one piece, and moves backwards and forwards so easily upon small iron wheels, that a child could with facility open or shut them.

A barn built in this manner is so snug and warm that some method of ventilating and purifying its atmosphere is rendered highly necessary, and accordingly an aperture has been left in the centre of the top of the barn, which is covered by a cupola. In each of the four sides of the cupola, there is an opening, of the shape and size of a small window, into which venetian blinds are fitted and fastened. The cupola is ornamented, if the taste and means of the farmer acquiesce, with panels, mouldings and carvings in the Arabesque, Gothic, or some other style, the whole being painted and surrounded by a gilded vane, balls and letters, to indicate the different points of compass. The gables, doors and windows of the barn are also frequently adorned with pediments; and the eves, or cornices, with wide, handsome mouldings.

A barn built and finished in this style, with its pretty white, or fancy-colored cupola peeping up through the surrounding trees, contrasting beautifully with their green foliage, or with the dark blue sky, presents to the eyes a pleasing spectacle, and is an ornament, not only to the farm upon which it stands, but also to the whole neighborhood and to the adjacent country as far as the barn can be seen.

Although there are many modifications to the above poorly described mode of building barns, yet

generally, it is considered the most convenient, and is, therefore, the one which is most frequently adopted.

There is one thing I wish to mention, which some, perhaps, may think unworthy of notice, but which to me, seems otherwise, and will, doubtless, to many others; and this is, that in these new barns no provision is made for the ingress and egress of the poor swallows.

Around these neat, spruce, well-proportioned barns, and their decorated gables and cupolas, the swift, graceful gyrations of the swallow are seldom seen, and beneath their sheltering roofs his merry twitterings are never heard. And why are these barns thus deserted by these sociable little fellows? Simply for the want of a little aperture, round or square, and three or four inches in diameter, in each gable of the barn, just beneath its apex.

In barns built after the old style, "swallow holes" were always to be seen. In some of these barns I have counted twenty nests at one time, all of them being occupied.

A barn swarming with a multitude of such happy, innocent inhabitants, resounds with such flutterings, twitterings and gushing outbursts of song, that it seems as if every one who enters within its precincts, even if he be a confirmed hypocondriac, must forget all his troubles, and feel his heart drawn upwards in praise to Him "to whom alone praise is due," for their cheerful melodies.

If birds possess, as they certainly did in at least one instance,—I refer to the story which appeared in the *Farmer* a short time since, under the title, "Instinct and Affection of Birds," and with which, all who read it were, doubtless, greatly interested,—such strong affection and such wonderful instincts as would almost lead one to suppose that they are endowed with the faculty of reason, it seems to me that they are worthy of our particular regard and protection. And, besides the pleasure we receive from their society, they, and especially the swallows, destroy during their short stay with us an innumerable multitude of insects, which is a fact of no little importance in these insectivorous times.

The above description of barns, both of the old and new style, have been given, not with the supposition that they contain any information for the intelligent readers of the *Farmer*, but that the reader, by comparing them together, may the more clearly perceive the great improvements which have been made within a few years, in these necessary concomitants of the farm.

There is, perhaps, no greater proof of the increasing wealth, knowledge and refinement of the farmer than this reformed method of building barns; and the fact that the farmer is thus increasing in knowledge, refinement and wealth, is a pleasing thought to all who truly feel interested in the happiness and prosperity of this great and glorious republic.

Groton, Oct., 1855. S. L. White.

Every Family should have an Agricultural Paper.—It is worth more than it costs simply for educational purposes. Parents have hardly a right to deprive their families of its advantages in these times. Children will learn more, as they go to and from school, to drive the cows to pasture, or pick berries by the way, if their observation is quickened. by what they hear their parents read or talk over from the agricultural papers; and when they form habits of reading for themselves, such reading is both safe and useful. Reader, if your neighbor has no agricultural paper, persuade him to take one. Even if he is poor, he can better afford to take one than to do without it: for if he takes one, his children will be likely to be better off—to make a good home for themselves, and it may be for him in old age. Not all will have farms; but all will need to know something of the garden and orchard at least; and we advise no parent, who feels that he may sometime be dependent upon his children, to bring them up without the means of instruction in rural economy. It should be regarded as essential in the education of any child, male or female.—*American Cotton Planter.*

SEEDS.

This is the season for the preservation of many of the seed which are to start future crops, and too much care can scarcely be exercised in the selection and disposition of them. If we desire early and perfect crops, we must begin them with the best seeds, and these can only be obtained by careful discrimination and preservation. They should be kept from moist places, and on the other hand not so dry as to shrivel and nearly bake them. Every farmer and gardener should have his seed drawers, conveniently arranged, and always ready for use.

Seeds constitute the ultimate production of plants. In shape as well as specific qualities they are widely and wonderfully diversified. While some are enveloped in a soft pultaceous substance, which easily decays, and allows the germ to expand, others are confined within involucres almost rivalling in their hardness and indistructibility, the most indurated mineral. In others we find the germinating principle protected only by a membranous integument, as in the case of the common garden pea. The seeds of some plants vegetate only in moist soil; others, of the aquatic sort, only in water; while a third class, require neither soil nor water, but develop in the open air. The latter are denominated aerial, to distinguish them from the terrene and aquatic orders, and are very numerous, but less so than the terrene or earthy kinds. The powers of prolification possessed by some species of vegetables, is truly astonishing. The thistle, for instance, produces an immense number of seeds, and these, owing to the villous or downy coating with which nature has endowed them, are so buoyant that they are commonly disseminated over vast extents of surface, broadcast, by the August winds. The same is true of the seeds of the dandelion, and many other weeds. The seeds of the locust, oak, walnut, chestnut, and other similar trees, are larger and more ponderous, and consequently are never diffused in this way; they require to be transported and planted by hand. The seed of the locust, is enveloped in a shelly integument of such exceeding hardness, that it can only be made to germinate by the application of the most scrupulous care. Some seeds are found to be capable of resisting the or-

ganic action of the stomachs of birds, and are thus conveyed and voided by them, without experiencing any detriment therefrom. Plants indigenous to one section are thus frequently found in places far remote—on promontories and the distant islands of the sea. Water, also, furnishes to many a vehicle of transportation, as well as the feathery coats of birds of passage, and the hair of graminivorous and carnivorous animals.

A YOUNG FARMER.

The old adage, "*Never too old to learn,*" has been thrown a century behind the present age, by the following letter, received by the editors of the *New England Farmer*:

"GENT.:—I am six years old; I send you $1.00 for the *N. E. Farmer, Monthly.*

"Yours, J. S.

New Market, N. H., Jan. 13, 1855."

If we could hope to receive one such letter during the year, we would labor with redoubled energy in the cause of agriculture. Where are the boys and girls of the South, who intend to be happy and prosperous in the exhibition of a life of industrious thrift, enterprise and frugal enjoyment? Where are the young men who are to fill the places of our staunch, planting population, who are now enriching the country by their labors? Labor, preparation, study, and an acquaintance with the details of practical life, must all be learned properly, before you are worthy to step into their shoes. It requires years of patient observance to fit you for the task. The operation of plowing, alone, will repuire experience and practice, to enable the planter to excel in it; and, unfortunately, *where to plow, when to plow,* and *how to plow,* are matters not to be learned in our high schools and colleges. So with all other departments of agricultual life. A young man of good education, when he commences agriculture as a calling, finds that he has to commence the study also, and his after life is spent in acquiring what he might have profitably learned under a proper system of agricultural education. If nine-tenths of our sons are to be planters, let them have primary educations to fit them for the pursuit. If planting is to be a *lottery of practice*—as it has ever been at the South—we might as well desist from our recommendations. But it must not be. We must still strive on, and if there is no proper system of Agricultural education provided for the people, we must make our journals travelling schoolmasters of the great science which feeds the hungry and clothes the naked.

For the New England Farmer.

A THRIFTY PIG.

MR. EDITOR:—Mr. George H. Floyd, of this town, purchased a pig on the 7th of July last, whose live weight was 173 lbs. He slaughtered it on the 16th ot October. It weighed when dressed 342 lbs. Now suppose we deduct 2-5 of the live weight when bought, (2-5 I believe is the usual amount allowed to waste in dressing,) it would leave 103 lbs. which would have been dead weight when bought. Now for the gain, which is 239 lbs., or 2½ lbs. per day. C.

Fremont, N. H., Oct. 20, 1855.

For the New England Farmer

HAWAIIAN AGRICULTURE.

MAKAWAO MAUI, HAWAIIAN ISLANDS, MARCH 20, 1855.

EDITORS OF NEW ENGLAND FARMER:—Gentlemen,—Till you shall have some other and an abler correspondent at the islands, I may not neglect to give you the news of the day.

You see, gentlemen, that the Sandwich Islands are not yet annexed to the United States, and I may add there is no likelihood that they will soon be annexed. I mention this as an item of news, which I think you may rely upon, and which I hope may exclude from nearly all the papers which from the United States reach the islands, items respecting the islands to this amount, that they are about to be annexed—negotiations all finished—the king ready, merely waiting the return of the Prince Liholiho from the windward in order to sign the treaty of annexation. I took the liberty of doubting the correctness of these statements when I first saw them; who made them is not exactly known, and there is now no need of inquiring. Whatever the late king, Kamehameha III., might have said encouragingly on the subject, he did not affix his name to a treaty of annexation, and death put a stop to his design of so doing, if he had such design. He died about the middle of December, and the same day Liholiho was proclaimed king, under the title of Kamehameha IV. and in a few days he was crowned, with much display of loyalty. The address of the young King, both to his own people and to foreigners, was sensible and good. Of course, no one expects annexation at present. No one speaks of it. No doubt many are greatly disappointed that the plan has failed, and the more so on account of the high hopes which have been raised by reading what they regarded as official statements on the subject of annexation. Do you inquire who would be benefited by such a scheme? No one would really be so, in my opinion, though a small class, I admit, would make money faster somewhat than they now do. The sugar planters compose this class. The duties which they now pay at California on their sugar and syrup, causes them to complain, and they are earnest advocates for annexation. Ten foreigners, however, would be injured, in my opinion, by the measure, where one would be benefited. I learn lately that about the time of the king's death, there were several gentlemen at Honolulu from California, who came down, it is thought, expecting that annexation was about to take place. The death of the king put an end to their expectations of this sort, and they have returned to San Francisco.

I claim, gentlemen, to be a cordial friend of my own native country, and none the less so because I am a friend of this my adopted one. I wish well to foreigners on these shores. I pray for their highest prosperity. As many of them as desire to settle on the islands, and are willing to become peaceful and law-abiding citizens, I rejoice to see among us; especially should I rejoice to see an increasing number of agriculturists, practical farmers, who should fence their lands, build barns, corn-houses, raise wheat, oats, corn, beans, barley, garden vegetables; feed stock, cattle, sheep, swine, &c., and fill their gardens with fruit trees of all kinds. They might not become *rich* in a year; they might not in five or in ten, but they would obtain a comfortable living, and their gains would be *sure* though

slow. And is not this as God would have it? Why should a man, any man, become rich in a day? This is not God's plan of bestowing riches, judging from the analogy of His works. Look at the oak, the product of His hand. In favorable circumstances it has become a lofty, a majestic tree, with deeply-buried roots and wide-spreading branches, which has withstood the storms and blasts of a hundred winters. It is a model of strength and beauty. But who does not know that this majestic tree of the forest gained this proud eminence by a slow, almost imperceptible growth? So in the intellectual world. The giant Newton, whose discoveries astonished the world, and whose name makes one proud of belonging to the same species, had once the mind of an infant, unoccupied and imbecile. He became what he was according to his own declaration, by a course of indomitable industry. So of others of like pursuits and of towering intellect. To industry and application is the world indebted, not to something called genius, for her good and renowned and useful men and women. And why in seeking wealth should not men be content to grow rich slowly? Why not be satisfied with moderate gains? Such gains are incomparably more safe to every one, more satisfactory to all reasonable men. Such were the gains of most men of my early acquaintance in New England—farmers and mechanics of country towns. I do not say that many of these would not have been glad of quicker and larger returns, of more rapid gains, though most of them appeared contented and happy in making the ends of the year, as they used to express themselves, fairly meet; especially, could they lay by a small sum at the end of the year. Even the merchants of those days were content with a small per centage on their goods. Small gains with much business was regarded as the most desirable method of conducting trade.

But these notions are regarded among us at the islands as antiquated, far behind this age of progress. Not only do most, not to say *all*, who from foreign lands come hither to do business, mean to become rich, but they design to become so at once. Slow gains will not answer their turn; such gains they could have secured at home. Why should they come thousands of miles, and deny themselves of the comforts of civilized society, merely to make a few hundred dollars per year? I do not say that many of these men use this precise language, though some have employed even stronger language, but the language of their conduct reads thus, if I have skill in reading it. Hence the few who engage in agricultural pursuits, or in other manual labor departments. The gains are too slow. The raising of wheat and corn, of potatoes, beans, &c., will do well enough for plodders, but we must adopt other plans, engage in more lucrative employments. Hence the few farmers, the lean markets, the importation of flour, bread, meat, &c. Hence the multiplication of merchants or rather store-keepers; the number of candidates for government employments, the increase of speculators—anything to make money, to secure quick returns. This is the great obstacle to Hawaiian prosperity. This keeps us poor more than anything else. This was the cause, as I informed you at the time of the heavy failures of 1851. Had the men who then failed been content with small gains they would have avoided this catastrophe—would have avoided the blow which has crippled them perhaps for life. But as some are more successful, fortunate they term it, and turn their speculations to a good account, the spirit still survives. When will men learn that the history of Jonah's gourd is one full of instruction. It came up in a night, was of marvellous rapid growth, spreading its shade over the head of the fainting prophet, and making him very glad of its cooling influence; just as the wealth of some speculator flows in like a mighty stream, carrying all before it, and fairly turning the head of the fortunate man. But look again at the gourd. "It perished in a night," leaving the poor prophet more unhappy than he was before the creation of the shade which he now mourns. If it is not thus with innumerable speculators, then I am greatly mistaken. Let men of all classes be content with the slow but more sure gains of industry, rather than eager for the quick returns of speculation, never safe, oftentimes criminal, and commonly injurious in their influence on communities. I will only add that the amount of wheat sown in this neighborhood is about the same as last year, say 1200 acres. The wheat is now promising.

Very truly your friend and fellow-laborer,

J. S. GREEN.

For the New England Farmer.

POTATOES FOR PLANTING.

MR. EDITOR:—I am an advocate for small potatoes for planting purposes. Not but that large ones are not as good, and perhaps better; yet on the whole, I am in favor of small potatoes. The argument, that small potatoes will produce small potatoes is not supported by facts. It appears to me that the application which writers on the other side of the question make of the axiom, "Like produces like," is sophistical, that it does not touch the question under consideration. Potatoes will produce potatoes, corn, corn, &c.; but it does not follow that a small potato will produce smoll potatoes. I am rather inclined to believe that the advocates for large potatoes for seed, are rather apt to try small culture as well as small potatoes, when they make experiments that way. Permit me to give my experience in relation to small potatoes as seed potatoes.

I am a mechanic, and cultivate only a small garden; it is, therefore, for my interest to produce as much as I can on a small space; my garden consisted of ten square rods in 1853-4, and this year there were two rods more added. Of this, I have planted some two-thirds to potatoes. In 1853, I planted with a mixture of large and small potatoes, and in October dug nearly six bushels, large and small, besides what my family used through the summer; from these I took all the small ones for the next year's planting; there were none larger than a good-sized plum, and many were smaller. In 1854 I planted these potatoes, and dug in the fall eight bushels of good-sized potatoes, besides the small and what were used in my family before digging time. This year I planted the small of last year's raising, and having finished digging, I find, besides what were used before digging, that I have 115 bushels in all, which makes about 250 bushels per acre. I think, considering the effects of the drought in this region, this gives a good result in favor of small potatoes. The manure which I used was ashes mixed with night-soil and the collection of a sink-drain. Yours, &c. H.

East Bridgewater, Oct. 22.

RAIN FROM THE ROOFS.

In our climate, when rain water is most needed, for washing, for cattle, and for watering plants, it is not to be had. There is a sufficient quantity falls, however, unless in seasons of extreme drought, to give every farmer a full supply, if he had the proper reservoirs for holding it. These may be made much more readily and cheaply, than most people believe they can be. On any soil but a very sandy one, the earth may be removed, and the sides and bottom cemented without brick or stone, and the top covered with chestnut plank, and any amount of rain water preserved. If slanted outward half an inch to one inch to each foot in height, and well cemented, a cistern will last for many years. Such cisterns would be a matter of economy to many of our farmers.

We find a paragraph in the papers which has suggested these remarks, stating that "every inch of rain that falls on a roof yields two barrels to every space ten feet square; and seventy-two barrels are yielded by the annual rain in this climate on a similar surface. A barn thirty by forty feet yields annually eight hundred and sixty-four barrels; this is enough for more than two barrels a day for every day in the year. Many of our landlords have, however, at least five times that amount of roofing on their dwellings and other buildings, yielding annually more than four thousand barrels of rain water; or about twelve barrels, or about one hundred and fifty ordinary pailsfull daily.

CHARCOAL FOR WHEAT.

There are many instances on record, going most conclusively to demonstrate the very high value of charcoal as a manure for wheat. We scarcely, indeed, take up an agricultural publication in which its efficiency, as a stimulant, is not rendered apparent by the most convincing and undeniable facts. A late writer in the *Lewisburg Chronicle*, in some remarks upon this subject, says:—"A few days since, in company with Mr. Jacob Dorr, of East Buffalo, I visited a spot on the land of my brother, John Dorr, on which the excellent effects of charcoal were plainly visible. Before reaching the spot, I noticed the beautiful bright green of the wheat in the lower part of the field, even at this season—the dead of winter—and remarked to Mr. Dorr, that that must be the spot. He stated that he had not visited it for a number of years, but was under the impression that it was higher up the field. When we arrived at the spot of beautiful green wheat, we found, indeed, that it was the locality of the charcoal. In some places the soil was black with the coal, and the wheat plants were very large and healthy. Their appearance is very fine, and they can be seen from all parts of the field, so superior are they to those surrounding them." It appears from the communication, that some fifty or sixty years ago, a blacksmith shop occupied this spot and near it there was a coal pit. This accounts for the presence of the coal, but not for the continued and undiminished fertility and suprising productiveness of the soil enriched by it.

But it is well known to many of your readers, no doubt, that charcoal is, in its nature, nearly indestructible. It remains in the soil for generations without scarcely any perceptible change or alteration, and when applied in large quantities, as a stimlant of vegetable life, acts from year to year, and even from generation to generation, without any obviously apparent diminution of energy or effect.—*Fountain and Journal.*

SALT FOR ANIMALS.

Professor Simonds, Veterinary Inspector to the Royal Agricultural Society, observes, in relation to the action of salt on the animal economy, that "it is exceedingly beneficial in moderate quantities, but prejudicial in large ones." He thought horses might take with advantage from an ounce and a half to two ounces of salt daily; but that an excess of it would render animals weak, debilitated and unfit for exertion. Similar facts were applicable also to oxen, which accumulate flesh faster by the judicious use of salt, than without it. He cited Arthur Young, and Sir John Sinclair, to show that salt had a tendency to prevent the rot in sheep. Prof. S. added as his own opinion, that salt, by its action on the liver, and the supply of soda it yielded to the bile, led to a greater amount of nutriment being derived from the food. The substance, he said, was also well known as a vermifuge, destroying many kinds of worms in the intestines of animals, and conferring a healthy tone of action which prevented their re-occurrence. Several members of the R. A. Society, as Col. Challoner, and Mr. Fisher Hobbs, stated that their experience led them to agree with Prof. Simonds in regard to the value of salt for animals. In reference to the mode of giving it, the practice of placing large lumps of rock salt in fields or yards, where it was accessible to the stock, was mentioned with approbation. This practice is now adopted by many farmers in this country, and after several years' trial, is preferred to the former mode of giving salt periodically. When animals are only allowed to have salt once or twice a week, it is sometimes the case that they eat too much at once, but by having it constantly in their reach, they eat such quantities as their systems require, and it assists the digestion, and promotes health and thrift.

SANATORY SUBSTANCES.

As the warm weather is now at hand, it will no doubt be very useful information to many persons to be told what are the best substances for removing offensive odors from sinks, &c. Copperas, or sulphate of iron, is a very excellent substance for slushing drains and sinks. By dissolving half a pound of it in a pail of hot water, and throwing it into a sink once per week, it will remove all offensive odor; and from the situations of many houses in all our cities, it would greatly tend to health and pleasure for the inhabitants of each to do this. The chloride of lime, or the chloride of zinc, will answer just as well, but these are expensive substances in comparison with copperas (sulphate of iron.) Lime is also very useful, and is, no doubt, a cheap deodorizer, but it is not a very good one; copperas, therefore, is preferable to all these substances.

But there is another substance which is far superior to either copperas, the chloride of lime, or zinc, as a deodorizer, both as it respects its qualities and

economy; we mean charcoal powder—made of ground wood charcoal. Charcoal powder possesses the quality of absorbing ammoniacal, sulphuretted hydrogen and carbonic acid gases in superior degree to any other substance. Placed in the vicinity, or spread among decaying animal or vegetable matters, it absorbs all the offensive and hurtful gases, and keeps the air sweet and wholesome.

We really hope that charcoal powder will soon come into extensive use as a deodorizer and disinfectant. It appears to us that it can be ground in mills in the timber regions where wood is cheap, transported to our cities, and sold at a very moderate price. We are convinced that a plentiful use of fresh ground wood charcoal for sinks, damp floors and the drains of cellars, would greatly tend to prevent disease in many places, by the absorption of miasma.—*Scientific American.*

For the New England Farmer.

CONCORD FARMERS' CLUB.

This Institution held its annual meeting on Thursday evening, Nov. 1, at the house of Dr. J. Reynolds. Simon Brown was elected President, Jos. D. Brown, Vice President; Minot Pratt, Secretary; W. T. Farrar, Treasurer. There was a full attendance, and the members came together with the right spirit, determined to give a new impulse to this Institution, which has already done so much to promote agriculture and horticulture in this town. Several committees were appointed, and among others, a committee to correspond with Farmers' Clubs in the neighboring towns, with a view to an interchange of visits, by means of delegates, during the ensuing winter. It was believed by the members that such a reciprocation of visits will add interest to our own meetings, and to those of other Clubs. The subject of a mass meeting of farmers and horticulturists, to be held in this town, sometime during the winter, was discussed. We hope such a meeting will be held. Such meetings, if properly conducted, are not only very interesting, but very useful.

Men of all other occupations, merchants, mechanics, professional men, meet, and become acquainted with each other, interchange views and concert measures to promote their respective interests, and why should not those who cultivate the earth? There is no occupation which such measures will more directly benefit than that of agriculture.

We hope this proposition will be received with favor by the farmers of Middlesex. The meeting held in this town two years ago was eminently successful. We should be glad to see such a meeting held in every county in the State during the coming winter. They would do more to promote the cause of agriculture, and to place farmers in the position they ought to occupy, than any other measure that could be adopted. In this connection, permit me to remark, that I hope the farmers in all our country towns will interest themselves in the organization of lyceums, and secure two or three good lecturers on agricultural subjects, during their respective courses. Agriculture is taking a prominent place in the literature and science of the country, and should be recognized and receive its due share of attention in our lyceums where such subjects are discussed. Yours truly, J. R.

SCOTT'S LITTLE GIANT CORN AND COB MILL.

This is the name of a very efficient grinding apparatus, for using with one or two horses. Its weight is 300 to 800 lbs., according to its size, and it can be easily adjusted and put in running order. The patentee warrants it to grind feed from oats, corn on the ear, &c., and to make grits, or fine hominy from shelled corn, with a degree of ease and convenience never attained before.

Judging from the popularity of this mill in Ohio, Kentucky, and other stock-raising States, where more than six thousand of them are in use, it must have been found a valuable adjunct to the farmer in the saving of labor and expense. The patentee claims for it the merit of "a peculiar, improved arrangement, by which it first breaks, then crushes and crumbles the cob at the centre of the mill, thus lessening the strain upon both mill and team, the chief work of crushing being thrown upon the central parts by a judicious application of the leverage power." Messrs. Parker, White & Gannett are the patentee's agents in this city.

SHEEP HUSBANDRY IN MASSACHUSETTS.

The great diminution of sheep husbandry in this State is very much to be deplored; it is a striking indication of deterioration and decay in our agriculture, unless we find that something more profitable has taken its place. We shall look, however, in vain for anything of the kind; every sheep, therefore, lost from the census of 1850, as compared with that of 1840, is a dead loss to the agricultural wealth of the State. Sheep are the most active and profitable agents in the work of amelioration and farm improvement. Valuable as fertilizers when folded, they likewise improve and renovate pasture lands, brought as ours have been by neglect to a state bordering upon non-productiveness.

Two objections are commonly made to keeping sheep, one is that they are difficult of restraint, and the other that they are very liable to be worried and destroyed by dogs. With regard to the first objec-

tion, it may be said that there are breeds of sheep so docile and quiet, that they only require the usual fences to keep them within bounds. The second objection is a much more serious one, because we have not the remedy in our own hands, unless we keep constantly on the watch against trespassers. Our agricultural towns, however, can aid the farmer very much in this matter. There is no more reason why they should not prohibit dogs from running at large, as cattle or any other animals liable to do injury, with penalties attached to the infraction of any law passed for preventing this measure, as to insure a proper obedience to it. In many parts of Rhode Island, where sheep husbandry has increased very much of late, the farmers have united together to keep off dogs, allowing no person to go over their land if accompanied by one. Many suffer their dogs to roam about, or to be their companions in the field and the road, from inconsiderateness, and when once they come to know the injury caused by them, they are quite ready to join in preventing it.—*Mr. Fay's Address.*

WORKING COWS.

Were the question submitted to us — "Why should not the cow be subjected to the yoke, as well as the ox?" the only reply, probably, we should be able to make, would be the very insufficient one, that popular custom is averse to, and would not sanction it. Prejudice often goes a great way, in such matters, even with the best informed. In this country the cow has rarely been subjected to labor of any kind; yet in other countries the case is different. In Spain and Great Britain, she is made to labor, both on the farm and on the road, and is said to be not only quicker but more tractable than the ox. One of our writers, who appears to have investigated this subject with considerable industry, remarks:—"We have no doubt that many farmers who do not want cattle for travelling much on the road, will find an advantage in working cows. As this custom is not common among us, it would be at once opposed by many as inconsistent, and unreasonable. In this respect it would be like many other improvements. There was a time when many farmers thought the only method to dispose of a large quantity of apples, was to work hard in the fall and fill up their cellars with cider, and then work hard in the winter to drink it up. They would have laughed at the thought of wintering hogs in a thriving condition, or fattening them mostly on apples; but experience has taught them that apples are valuable for making pork, and that much cider-drinking is attended with trouble and expense, and is injurious to health; and had we time, we would show that many other improvements, when first introduced, were regarded as changes for the worse."

Another, adopting the same views, says:—"Why cannot cows work as well as mares that are with foal, or have to nourish offspring? Mares, without injury to themselves or their young, perform considerable labor till within a month or two of their foaling; and they again labor within a few weeks after that time, and with kind and gentle treatment, and good keeping, they and their colts are better than they would be, if they were entirely idle. Look at animals through the wide creation, and see how few among them are idle mothers! Exercise is conducive to health and strength; and every animal, four-legged, as well as two-legged, ought to take, at least, moderate exercise, as it is conducive to their comfort."

In this connection we present the following account of an experiment, made some years since, by an intelligent "Yankee Farmer," who had found the expense of keeping a yoke of oxen on a small farm somewhat more *debilitating*, in a pecuniary sense, than his conceptions of strict economy induced him to regard advisable. He commenced working his cows in 1836, in the spring, using a pair of cows that had calved the previous January. They were four years old and of a large size. He did all his plowing and other spring work with them, working them almost every day. During this time they continued to give a good mess of milk, and he was unable to discover that their labor occasioned any skrimpage, except on a couple of days when a young colt, which was under process of "*breaking*" was worked before them, and occasioned them unusual fatigue. In the summer he hauled his hay with them, and was not aware that they failed in any respect to do as well as oxen. During the winter, which was remarkable for its severity, and the depth of the frequent snows, they were used for breaking roads, and not unfrequently got so deeply into the drifts, as to render it necessary to relieve them by shovelling. They were not, however, in the slightest degree injured, and calved the following April.

The subsequent autumn, he worked an additional yoke, making a team of four cows. With these he did all his plowing, breaking green-sward, during thirteen or fourteen days, besides plowing his corn and potato lands.

His hay was again housed by them, and in the fall they harvested his crops, and were employed very constantly till a late period in hauling wood, rocks, &c. Their food was straw, turnips and hay. It is his opinion that cows, properly subjected to the yoke, are quicker and smarter than oxen, and will perform more labor, according to their size, if kept in good condition.

They are also less difficult to break, he says, than steers, as all except one were perfectly mild and kind after the third day. In this case the keeping was no doubt good, as it should always be when these useful animals are subjected to the yoke.

When cows are made to labor, care and kindness are of the greatest importance. On this subject, a writer very truly remarks:—"Every animal should be treated with kindness, but harsh treatment of oxen would not be attended with so much injury,

as it would with cows. One of these cows is partly, and if we recollect right, mostly of the Durham short-horned breed; she is an excellent worker and a good milch cow. Another farmer informs us that he knew of two cows being worked as regularly as oxen, and worked hard too, from the time they were calves, till they were six or seven years old, and they were of a large size and very handsome. He understood that they gave a good mess of milk when well kept."

Persons having had opportunities of observing the action of these animals, when subjected to labor on the road, have been surprised by the singular docility and mildness they evinced, and the alacrity with which they obeyed the commands, and even the motions of the driver.

On the small farms in Massachusetts, and especially near the cities, where the making of milk is the principal object, it is important to dispense with oxen. A horse or two we must have to go to market, meeting or mill, and with a horse and two or four cows, all the work of such farms may be conveniently performed. These suggestions may seem to some as of little value, but there certainly can be no harm in a consideration of the subject.

For the New England Farmer.

CLIFF SWALLOWS.

FRIEND BROWN:—Knowing that anything relating to birds is interesting to you, I propose to add my mite in relation to swallows. Late in June, last summer, six or eight of the cliff swallows came to my open shed, where I keep my wagon, cart, &c., and built a nest in a very short time, say three or four days. In as short time as possible the old bird was sitting. Soon, another pair came and went to work at their leisure, taking their own time to do their work. After the first nest of eggs were hatched, and the young had nearly attained their growth, we found the nest and young birds all on the ground, and the old birds missing. Wishing to get a settlement of these birds around my buildings, I set my wits to work to save them. I went and found a second-hand robins' nest, drove up some nails, put up the nest, put in the young birds, and the old ones came and took care of them, and put on another story, and trained their young until they were able to fly. The second nest fell down just as the young ones were able to fly.

Now the reason why I write this, is to make a few suggestions to those who like to have those swallows about their premises; and I would say that I have never known them to build on new buildings; and, also, when they come and look about and stick on a little mud and commence operations, that if you put up anything to help them, they are sure to leave for the season. Now to try to accommodate them, I have lately put up some old dirty strips of board in the places where for several years they have made unsuccessful attempts to locate themselves, and if any happen to see this and wish to get a colony of swallows, I wish they would try my experiment. B. F. CUTTER.

Pelham, N. H., Oct., 1855.

CRUMBLING BONES IN ASHES.

Having seen in the *Farmer* a short time since a communication from friend E. G. B., of Yarmouth, concerning his "bones," in which he complains that his bones, though packed away last April (I believe, for I have not the paper at hand,) will not soften; let me give him a bit of my own experience.

A year ago last March, I saw a statement in the *Dollar Newspaper*, that bones treated as friend B. has treated his, would decompose and make good manure. Accordingly I took a barrel and put in ashes three or four inches deep, then a layer of bones, and covered them with ashes. It was then wet with urine from day to day, till I supposed the ashes was completely saturated with the liquid. Then another layer of bones was added, and covered as before, and wet with the same liquid. This process was repeated till the barrel was full, and then left undisturbed till the last of May, when it was dug out to be used, and the bones were found to be soft enough to be cut with a shovel, except a few jaw-bones and teeth, which seemed to be proof against the leech, in a great measure. I have now Ruta Bagas growing on the mixture. It was put in the drills and covered about four inches; I supposed it might be rather strong, and buried it accordingly. Within a week or two those Bagas looked as if they had got hold of something that agreed with them.

If E. G. B. will give his bones time, I think there will be no trouble about there becoming soft enough to be picked to pieces with the fingers, as the most of mine were. But mine were in pickle nearly 13 months, instead of 3 or 4, as friend B. says his have been. Whether soap suds would be more effectual than urine, or less so, is a problem to be solved by some one who is more of a chemist than myself. I used the urine in order to save it, as my faith in the softening of the bones was like a "small grain of mustard seed." From present appearance the mixture is a very powerful fertilizer for Ruta Bagas at least. To be patient, friend B., let them soak till next spring and then try it on some of your crops, and let us know the result of your experiments. S.

North Yarmouth, Aug. 6, 1855.

—

NOTE.—We like the suggestions contained in the above communication. The course proposed will make a rare combination of fertilizing materials, and a hogshead or vat near the out-house of every house-keeper filled as directed, will become useful in more ways than one.—*Ed. Maine Farmer.*

—

We copy the above from the *Maine Farmer*, and highly approve of the plan recommended for such localities as can furnish unleached wood ashes, and where sulpheric acid cannot be procured—but when sulphuric acid can be bought at 3 cents per pound, or less, and not ashes, should be used to decompose bones. The bones may be thus prepared:—Mix bones and brush together, then set fire to the brush, which, if the quantity of brush be not too large, will carbonize the bones on their surfaces alone, and thus render them friable, so as to be easily broken. When broken they are then ready for treatment with sulphuric acid, thus:—Stand a hogshead on end, take out the upper head, trim off the edge of this head and bore a few augur-holes, of a half-inch or more in diameter, through it, place a few stones

or bricks on the bottom head, and on these place the upper head prepared as above—then throw in 100 gallons of water, and 5 to 10 gallons of sulphuric acid, stirring the water briskly to prevent the acid falling to the bottom; then throw in the burnt bones, stirring the mass each day for a week, after which the dissolved portion of the bones may be drawn from the bottom and thrown over any compost, or applied in the fluid form dilute, direct to the land. Masses of earth or charcoal dust may be witted with it, and then scattered like ashes or other finely divided manure. More bones and acid may from time to time be added to the hogshead, taking care always to have more bones than the acid will dissolve. One bushel of bones, so prepared, will be more effective on the crops of the first five years, than ten bushels treated with ashes.—*Working Farmer.*

HOW TO GROW GOOD FRUIT.

There is still large quantities of fruit cultivated that is not worth taking to market. Hundreds of bushels of apples have been made into execrable pies in Boston this fall, merely because they could be purchased at a trifle less cost than those of a better quality. But it is a mistaken economy, as a mild, good-flavored apple would require less sugar and then make a better pie. Many persons have a pride in, and attach too much consequence to an apple which sprang up spontaneously on their own farm, or, perhaps, which they have cultivated with some care, and then numbers of seedlings occupy the places that should be improved by finer varieties, and which, if cultivated, would afford a greater profit.

The New York *Tribune* brings to notice the following:—

Just see how easy it is to grow better fruit. In Adams county, Ohio, John Loughry has a peach orchard of eleven acres that has yielded him this year five thousand dollars, while peaches have been selling in Cincinnati at twenty-five cents a bushel. It is easy to see that his orchard would not have produced that sum at that price. No, it did not. He got two dollars a bushel more readily than his neighbor got twenty-five cents for the same variety of peaches. And this is how he did it:—

"When the peaches had arrived at the size of a hickory nut, he employed a large force and put on one hundred and eighty-five days' work in picking off the excess of fruit. Probably more than three-fourths of the fruit then on the trees was carefully removed. Each limb was taken *by hand*, and where within a space of eighteen inches there would be, perhaps, twenty-five peaches, but five of the fairest ones would be left to ripen. By carefully removing all but the strongest specimens and throwing all the vigor of the trees into them, the peaches have ripened early, and are remarkable for size and excellence of quality."

There, this was labor—seven months' labor of one man in a small peach orchard! What of it? His net profits were between three and four thousand dollars. If he had neglected his trees his profits would have been a crop of peaches hardly fit to feed the pigs.

In the management of his trees, Mr. Loughry keeps them trimmed in, and annually removes about one-half the wood that is formed. He uses a compost, and omits nothing to bring them to perfection, and thus keeps the trees in full vigor. Will other farmers take a hint and follow so good an example?

For the New England Farmer.

TETE-A-TETE OF THE MILKMAIDS.

BY "ANGELINA ABIGAIL."

Becky, see the sunset glowing,
O'er the fields a radiance throwing,
Golden, pure and steady;
O, its beams illume my spirit.
(That's our cow-bell—don't you hear it?
Get the milk-pans ready!)

Yes, dear Sally, look and listen!
Now the dew begins to glisten—
Hark! the night-bird's sonnet!
What a balmy breeze is blowing!
(Head the brindle cow—she's going—
Run—I'll hold your bonnet!)

Becky, does the twilight hour,
By its bland and soothing power,
With sweet musings fill you?
Peace hangs round us like a mantle—
(Soh now, Sukey, come, be gentle!
Stop that kicking, will you?)

With music earth is overflowing—
There, the hungry calves are lowing!
How those tins do rattle!
But I fain would wander, Sally,
To some green and quiet valley,
Minus horned cattle.

Becky, life's a fleeting hour;
Joy brings grief—e'en cream will sour—
Yet 'tis vain complaining;
Mortals now get milk and honey
Only by hard work and money!
(Set the pans for straining!)

REGULARITY IN FEEDING CATTLE.

Stephens, in his "Book of the Farm," gives the following illustration of the necessity of regularity and method of agricultural duties:

In thus minutely detailing the duties of the cattle-man, my object has been to show you rather how the turnips and fodder should be distributed relatively than absolutely; but whatever hour and minute the cattle-man finds, from experience, he can devote to each portion of his work, you should see that he performs *the same operation at the same time every day.* By paying strict attention to time the cattle will be ready for and expect their wonted meals at the appointed times, and will not complain until they arrive. Complaints from his stock should be distressing to every farmer's ears, for he may be assured they will not complain until they feel hunger and if allowed to hunger, they will not only lose condition, but render themselves, by discontent, less capable of acquiring it when the food happens to be fully given. Wherever you hear lowings from cattle, you may safely conclude that matters are conducted there in an irregular manner. The cattle-man's rule is a simple one, and easily remembered, —*Give food and fodder to cattle at fixed times, and dispense them in a fixed routine.* I had a striking instance of the bad effects of irregular attention

to cattle. An old staid laborer was appointed to take charge of cattle, and was quite able and willing to undertake the task. He got his own way at first, as I had observed many laboring men display great ingenuity in arranging their work. Lowings were soon heard from the stock in all quarters, both in and out of doors, which intimated the want of regularity in the cattle-man; whilst the poor creature himself was constantly in a state of bustle and uneasiness. To put an end to this disorderly state of things, I apportioned his entire day's work by his own watch; and on implicitly following the plan he not only soon satisfied the wants of every animal committed to his charge, but had abundant leisure to lend a hand to anything that required his temporary assistance. His old heart overflowed with gratitude when he found the way of making all his creatures happy, and his kindness to them was so undeviating, they would have done whatever he liked.

TREE PLANTING.

We notice among the munificent bequests of Elliott Cressen, a legacy of $5,000 to be employed in planting trees in Philadelphia. There is something touching in this gift. It is fragrant of good taste and friendly feeling. It seems to express gratitude for the comforting shade of some old tree under which the weary philanthropist had meditated his schemes of usefulness; and of considerate interest for the health and pleasure of future generations, who are to people the city of his birth. And when monuments of marble and of bronze shall crumble, the broad arms of the elm and the oak shall stand out against the sky as the befitting memento of the liberality and the last of the tree-loving Philadelphian.

Every one should plant trees. No object is more beautiful than a spreading elm, or a lively evergreen; none more productive than the apple or the luscious pear. Half the labor bestowed on a single crop of potatoes, would originate an orchard, the product of which in a few years would be equal in value annually, to the potato crop, yet with but little labor beyond the harvesting. A fortnight's toil in the spring or autumn, in transplanting choice fruit-trees to the roadside, or tastefully grouping them on the lawn, will ultimately add more to the value of the place than twice the time employed in building or fencing. For their own comfort, for the sake of their descendants, for the taste and improvement of the country, plant trees—let everybody plant trees.

That bald, naked church. tasteless, treeless! Who will have compassion on the worshippers, and surround it with trees? That district school-house, bare and unsightly; who will interest the boys in planting and protecting shrubs and trees that will make it an attractive and beautiful spot? Those verdureless villages, with their houses thrust upon the street—who will distribute honey-suckles, and Virginia creepers and prairie roses, that they may be turned into civilized habitations?

There is a softening, humanizing influence in horticulture and tree-planting, that we could wish were more general. There is too much danger of the gross and sensual and selfish in our national character; and while our reliance must be on religious and educational influences to correct this tendency, we believe that good and only good would come of the love for trees and flowers, and the cultivation of both. It may be blessed in leading the heart up to the love of the Rose of Sharon and the garden of God.—*American Messenger.*

For the New England Farmer.

THE CANKER WORM AGAIN.

CAN WE PROTECT OUR ORCHARDS FROM HIS RAVAGES?—A PLAN THAT HAS SUCCEEDED.

Mr. Editor:—Permit me to correct a grammatical error in my last communication, in which I designated the female moth by the unfeminine appellation, "he."

Last fall my father caught several of the female moths, and putting them under a tumbler, watched their movements. True to their instincts, they immediately commenced toiling up the sides of the tumbler. Some could advance but a few lines; one or two, after several ineffectual attempts, at length reach the inverted bottom, when they stopped, and felt about, seemingly in trouble. In a few minutes they mustered courage and endeavored to walk the glassy plain, but in every attempt no sooner were their hinder feet raised from the sides, than down the poor insects came. Here, then, was a fact established, that *the female moth could not carry its destructive load across a horizontal surface of glass.* That they are provided with the foot-flap or suction apparatus attached to the feet of most insects, to enable them, by an atmospheric pressure, to more than counterbalance the falling down power of gravity, is evident from the fact that they could ascend the sides of the tumbler. Now for a practical application of this fact, which points to a horizontal plane of glass as an impassable barrier to the progress of the moth. The lamented Mr. Cole, in his excellent *Fruit Book*, states that Mr. F. Dana, of Roxbury, in the *Ploughman*, recommends that the tree be surrounded by a collar of wood made slippery by glass on the under side. Of the mechanical application of the glass Mr. Cole gives us no information. Mr. William Bowler, of this town, conjecturing that glass would be impassable to the moth, during the last fall and winter protected his trees accordingly, and the result was, as might be conjectured from the tumbler experiments, though his neighbors were sorely troubled by the ravages of the canker worm, his own trees were comparatively unharmed, and doubtless would have been wholly so, if the plan had occurred to him earlier, before the moth was on the move. For Mr. Bowler's method of applying the glass, I would refer to that gentleman himself, as, from the use he intends to make of his plan, it is not proper that I should make it public. However, I would say, that though he has courteously given us free permission to avail ourselves of his ingenuity, my father has designed, and is now protecting our trees by the following method, believing it to be as cheap, as efficacious, and considerably easier of application than that of Mr. Bowler.

For large trees, take two pieces of board, oblong squares, cut a semicircle out of each of them, so that when united the two may embrace the tree in the circle. Next take four strips of board, to be used as cleats to surround the wooden platform on the upper side, at about half an inch from its edge. Before securing these cleats, groove them away on their edges, to the depth of about three-fourths of an inch, with a width of about three-sixteenths of an inch. Secure these cleats to the platform (the

two transverse ones will serve to connect the two parts together,) by screws or nails, as you please, though to facilitate removal it will be better to fasten the transverse ones by screws. Secure the platform to the trees, either by suspending it by strings from the lower limbs, or by wedging with wedges of wood, in either case filling up between the platform and the tree with a stuffing of tow, oakum, or some substance which will prevent the moth from passing between it and the tree. Some who have tried sea-weed as stuffing, have abandoned it, believing from its tendency to hold moisture, or from other reasons it furnished a tempting place for the operations of the borer. Having fastened the cleat as before directed, within half an inch of the edge, surround the platform by slips of glass, from two and a half to three inches in width, sliding the slips under the grooves in the cleats; the glass will thus rest on the platform completely surrounding it, and projecting beyond it from one to two inches, as may be. The space that will remain between the cleats and glass of ordinary thickness, will, of course, require sufficient stuffing with cotton, oakum, or some light material, to keep the glass in its place; but room must be left sufficient to allow for the warping of the wood, and consequent bending of the glass; still the experimenter must be prepared to find some of his strips cracked from this cause, though it may be mostly obviated by treating the woodwork to a good coating of paint before applying it. Should the glass finally crack, he will still find it as good a protector as before. Glass for the above purpose can usually be found among the waste pieces of the glazier. Care must be taken to wipe the projecting portion of the under side of the glass, to keep it free from dust or particles of earth, which may be dashed on by rains, otherwise by stepping from particle to particle, the moth may be able to bridge the barrier.

With our trees thus protected, we consider them secure from the intrusions of the moth fraternity, those with wings sufficient for flying being excepted, and experience may teach us that we must also except an occasional specimen whose abdominal load is exceedingly light, perhaps supplying one or two exceptions in the course of a season. There is room of course to modify the above plan in some of its particulars, to suit the judgment and experience of each; for instance, in the distance between the cleats and edges of the platform, some may prefer to have them nearer, and the glass consequently narrower, but the above is the plan my father has adopted for our larger trees, and such as it is I cheerfully present it for the consideration of our brother farmers, and should their ingenuity or experience enable them to suggest improvements, we should be very happy to learn them. If the trees are small, say under six inches in diameter, instead of the platform they may be directly encircled by glass. First surround such trees by a thick ring of rich putty, and allow it to remain a short time to harden, then insert your glass, having first cut off the corners to prevent all unnecessary pressure; the glass will now externally have the form of an octagon. Should it appear likely to fall, it may be propped by two or more supporters, resting on the ground. I should remark relative to this last plan, that its practicability is to a degree conjectural, though from a limited test we are sanguine that it will succeed.

Respecting the advantages of these plans, it will be readily seen that the material used is of low cost, that the simple apparatus can be easily constructed and applied by any person of common ingenuity, that with the return of the growing season the protection necessary for a large orchard could be easily removed, within an hour's time, and finally, that the enclosing circle can be easily enlarged, so that the same collar may be used around the same tree for many years.

Without knowing anything of the mechanical construction of Mr. Dana's collar, which certainly involves the same idea, I would state that those proposed serve as two-fold barriers. The insect appears to be completely deceived by the glass, evidently confiding much in the testimony of its own eyes, like many faithless bipeds, it plumps its head continually against the glass above, but because it perceives nothing, believes nothing. This want of faith in the presence of any obstacle to their progress, may, in part, account for so few venturing on the glass, for I am told that whole ranks of these unbelievers may be seen for hours marching along the borders of the glass, each probably wondering why its silly neighbor don't go up. We found the other morning just under the glass two curculios, apparently checked in their progress up the tree; but whether it would serve as any effectual protection against this great winged enemy, may well be questioned, though I note this fact.

I doubt whether to those who have not been subject to their ravages, either the excellent works of Downing or Cole give a correct idea of the time of the ascent of the canker moth or the ravages of the canker worm. In the year 1852 the first individual moth found in the act of ascending our trees, was on Oct. 24; in 1853, the first found was on the 13th; of the year 1854, we have no record, while on the present year, the first discovered was on the 21st inst. There can be but little doubt from the above date that the moth usually commences her ascent as early as thefirst of October, and we know by observation that they may be found ascending on almost any pleasant day from this date to the close of their season.

The moth ascends in increased numbers just after a hard frost, which seems either to quicken her instinct or set her free from some imprisoned state in which she previously existed. We have examined our trees each day and each night for the past fortnight, and find that like other intruders, they prefer the cover of the night.

Of the extent of their ravages, those infested by them can testify that they will strip large trees, and even orchards, so that *literally* not a green spot can be found on them; and not satiated with this, they will devour every germinating effort of the tree to recover itself. There is an orchard, almost within stone's throw of where I am now writing, which lost by their depredations a few years since several of its finest trees, trees of the largest size, from two to two and a half feet in diameter, and with vast-spreading heads that have drawn the attention of many a passer-by. But like many other of the farmer's pests, they keep their "age and generation," now in this neigborhood, now in that, infesting one locality for years, and after one sweeping devastation, blessing another locality by an absence of half a century. Meanwhile we must match our intellect against his instincts. J. J. H. GREGORY.

Marblehead, Oct. 30.

EXTRACTS AND REPLIES.

A FINE SWEET APPLE.

J. WHITMAN, Esq., of South Abington, Mass., presented us a sweet apple the other day, which we think is a new variety, and a very fine one. It is a little above the medium size, oblong, of a greenish-yellow color, on one side covered with russet blotches, and the other side free from them; stem half an inch long, slender and deeply set; calyx in a shallow basin, and surrounded by minute blackish dots.

The flesh is tender, crisp, juicy, fine grain, having a delicious sweet, without any bitter or astringent flavor, and must be a good dessert, as well as baking apple. He says it ripens in September, and will keep through October and November. With the fine crop of apples of the present season, it is difficult to procure, even in the country about Boston, a barrel of good sweet apples. We do believe that not more than one family in twenty, in Middlesex county, where we reside, and know something of its products, have, to-day, a barrel of good sweet apples,—whereas every farmer should have at least two barrels, and three more of Baldwins, Hunt Russets, or some other pleasant acid apples.

We hope the "Whitman Apple," will be submitted to good judges, and if found to be what we think it is, will be brought into notice.

—

AGRICULTURAL SCHOOL—VALUE OF CARROTS.

MR. EDITOR:—Will you, or some of your numerous correspondents, please to inform me, through the columns of your valuable journal, the value of carrots, as compared with oats, for horses and sheep.

And will you please to tell me where there is a good agricultural school for those who wish to go for a short time? A. R. PIERCE.

West Townshend, Vt., 1855.

REMARKS.—Will some of our correspondents answer the inquiries of the writer above, who, we suspect, is a lady?

—

KAHL-RABI.

Through the politeness of THOMAS A. SMITH, Esq., of Westboro', one of our systematic and intelligent farmers, we have received a fine specimen of the Kohl-Rabi, or Bulb-stalked cabbage, (*Brassica oleracea*, or *caula-rapa*.) This curious variety of cabbage is a native of Germany, where it is much cultivated, and whence it was introduced into England, by Sir Thomas Tyrwhitt. The stem is swollen like a tuber, and, when destitute of the leaves, may readily be mistaken for one. The produce is nearly the same as that of Swedish turnips, or what we usually call ruta-bagas, and the soil that suits the one is equally good for the other. It may be sown in drills, or raised in beds, and transplanted like cabbages; in this case the beds are sometimes made and the seed sown in Autumn, in England, but it is doubtful whether that course would answer here. It might, perhaps, on a small scale, where the beds could be covered with leaves or something else as a protection.

—

NEW APPLES.

MR. EDITOR:—I send you some apples raised by Mr. Lysander Hollis, of this place. They are a fair specimen of the product of a young tree—a sucker from the roots of an old tree, which was removed some years ago, and which must, therefore, be a natural fruit. Please try them, and give your opinion of their merit. Yours, S.

South Weymouth, 1855.

REMARKS.—Well, we will. They are below mediocrity in texture and flavor,—having a sharp, acid taste, and at the same time coarse, crumbly and mealy. Don't propagate them. You can find a dozen varieties better.

—

HOPS.

We are unable to inform our correspondent at Lincoln, Vermont, what proportion of hops is used for distillation, and what for other purposes. A large quantity, certainly, are pressed into cakes weighing one or more pounds, and used for family purposes, such as making yeast, beer, &c.; but one-half, probably, of all the crop produced, may be used in distilling.

—

PEARS ON QUINCE—GOOSEBERRIES—GRAZING MOWING LANDS—COTTON CLOTH FOR HOT-BEDS.

MR. BROWN:—The willingness which you manifest to reply to the queries of your correspondents, encourages me to ask a few questions also, viz.:

1. What are the best six varieties of pears for cultivation on the quince, taking into account vigor, productiveness and flavor?

2. What soil and treatment do gooseberries require, and what are the best kinds to raise for market?

3. Is the common practice of grazing mowing lands in the fall, a good one? or, in other words, does the benefit received in increase of milk, &c., exceed the injury inflicted upon the land, the roots of the grass, &c.

4. I think I have read of white cotton cloth being so prepared as to be a good substitute for glass on hot-bed frames; will it answer the purpose, and if so, how should it be prepared?

By answering any or all the above inquiries in the *Farmer*, you will much oblige,

Weston, Oct., 1855. A YOUNG FARMER.

REMARKS.—1. Col. Wilder, in an excellent article on Fruits in the monthly *Farmer*, gives the following list as those which succeed well on quince stocks.

Louise Bonne de Jersey,	Glout Morceau,
Vicar of Winkfield,	Passe Colmar, and
Duchess d'Angouleme,	Urbaniste.

See his article, page 193, Monthly *Farmer*, for 1852.

2. The gooseberry requires a bright sun and deep soil, made rich and kept light. See COLE'S Fruit Book for the varieties. He is probably as near correct as we can come.

3. The *common practice* of grazing mowing lands is exceedingly injurious. Where there is a generous second growth of grass, a portion of it may be fed off without detriment, but to crop it as is the *common practice*, deprives the roots of their vigor, and exposes them to the winter winds, and is the frequent source of "winter-killing." Over feeding also robs the land of a coating of manure which would be found in the thick and decaying grass of the second growth.

4. Cotton cloth, oiled with linseed oil, answers a pretty good purpose for a hot-bed. But a glazed sash may be obtained so cheaply now, that it is scarcely economy to resort to anything else.

—

APPLES.

MR. BROWN:—I send samples of three varieties of apples, of which I wish to know the names.

The largest-sized red apple is just now in eating. bears well every year, most in odd years; tree probably forty years old.

Two specimens of what I take to be Hunt's Russet, keeps till May. Are they? One specimen of a handsome small, red apple, said to be very fine, in eating in January. An answer to the above, through the *Farmer*, or otherwise, will oblige,

North Andover, 1855. WM. BATCHELDER.

REMARKS.—Two of the apples mentioned above are the Hunt Russet—the others are unknown to us.

—

MAGGOTS IN SHEEP.

GIDDINGS WHITMORE, of Marshall, Calhoun Co., Michigan, informs us that common honey applied to the heads of sheep afflicted with vermin, or to the tails of lambs when docked, will cure them. He also says, in answer to the frequent inquiry, "What does the striped squirrel do with the dirt he excavates in making his hole?" that he has seen them repeatedly go away with their cheeks stuffed, and drop the contents in some stream near by, and so continue to work until their task was completed.

—

CULTURE OF CRANBERRIES.

MR. EDITOR:—Will you inform me through the columns of the *Farmer*, the best modes of cultivating cranberries, on a swamp where the turf is from 10 to 15 inches deep, and the water is drained two feet from the top of the turf. Would it be best to take off the turf and set the vines on the mud or muck? When is the best time for setting the vines, and how far apart should they be set? And is there anything that can be put on them to make them grow and bear well? H. W.

Mason, 1855.

REMARKS.—The following is the plan proposed by Mr. F. TROWBRIDGE, of New Haven, Conn., and agrees pretty well with our own knowledge of the proper mode of cultivation:

"The soil best adapted, is such as will keep moist through the dry season; they have been raised on land high enough to produce corn and potatoes with a wet substratum under the soil, or a clay and loam. They will not succeed well on dry, sandy, or land liable to bake or become hard in dry weather—but they will produce an abundant crop on poor swampy land that will not produce any other valuable crop, or any wet land after being drained. Dry ground should be plowed and harrowed smooth; in a swamp where a plow will not work, the turf or bog may be peeled off or burnt to get the weeds and grass out. They may be set in fall and spring, as early as the ground will admit, until the middle of May. Moss, tan, or anything to retain the moisture, would be beneficial around the plant after transplanting; a little sand around the plant fall and spring, will tend to keep the weeds out.

Planted in drills as you plant strawberry, cabbage, and other plants, one and a half to two feet apart. At two feet apart each way, it will take 10,000 plants to the acre. Hoe them slightly at first, until the roots become clinched, and afterwards no other cultivation is needed, unless to keep out weeds and grass. The plants may be expected to run together and cover the whole ground in two or three years. They can be gathered with a cranberry rake made for the purpose, to be procured at the agricultural stores."

—

HOW TO SAVE PLUM TREES AND PLUMS.

In the spring remove the soil from the roots, and if there are any knotty lumps on them, scrape them off carefully, and then scatter two or three quarts of coarse salt over them, and then put on the soil, and during the summer keep the tree well covered with air slaked lime, to keep off the curculios, and occasionally shake the trees while in flower and while the fruit is forming, gather and destroy all the fruit that drops. In this way I have been able to save my plums; I have gathered five bushels of good ripe fruit from one green gage plum tree this summer. Respectfully yours,

Pawtucket, Oct., 1855. G. D. STREET.

—

APPLES.

Please accept a specimen of my apples. Can you inform me the name of them? The tree is a great bearer, and some of the fruit is excellent; where the apple is exposed to the sun, it is somewhat watery. H. W. BARTLETT.

East Holliston, Oct., 1855.

REMARKS.—This fruit is new to us, and if like those we tasted, hardly worthy of propagating, when we have so many fine varieties about us.

For the New England Farmer.

STRIPED SQUIRRELS' HOLES.

MR. EDITOR:—There has lately been going the rounds of the papers an article asking "What becomes of the dirt when a striped squirrel digs his hole?" I had supposed that naturalists know, and that every intelligent farmer ought to know, that a striped or ground squirrel, when he digs his hole, carries his dirt in his cheeks to a distance of several rods from where he digs it. In proof of the above I can show a pile of dirt where it has been left by them, and have several times killed them with the dirt in their faces or cheeks. B. F. CUTTER.

Pelham, N. H., Oct., 1855.

THE INSECTS OF COMMERCE

There are forms of life, insignificant as to the outward appearance, which are not only indirectly serviceable to mankind, but of great direct commercial value, either in themselves or in their products, to some of which we may refer with interest, as illustrating the frequent connection of the beneficial with the lowly in the scheme of creation.

The honey which the bee elaborates from the nectar of flowers is in many countries an important article of food, and the base of a vinous beverage, though its value has much abated to ourselves since the discovery of sugar. The wax which the insect occasionally secretes is also an extensive demand among civilized nations for various domestic purposes, polishing furniture, and lighting up the saloons of the great.

At Narbonne, the chief trade is in honey, which is said to be the finest in France, remarkable for its whiteness, and highly aromatic flavor. This peculiar excellence is owing to the number of fragrant plants in the neighborhood, and the variety in the nourishment of the bees secured by the system of management. From the gardens of the city, the hives are regularly carried to the surrounding meadows, and afterwards conveyed 30 or 40 miles distant, as far as the Low Pyrenees. By this arrangement, the cultivated vegetation, with that of the meadows and the mountains, is put into requisition to produce the honey of Narbonne. The tending of bees is, perhaps, the oldest of all industrial occupations, after tilling the soil and keeping flocks and herds. It is also one of the most stable as to its locality. Milton speaks of the

> "Flowery hill Hymettus, with the sound
> Of bees, industrious murmur."

Hymettus, memorable from its connection with the name of Plato, extends to the east and south of Athens. From the summit, the ancient city was seen in its glory near the base while beyond it, westward, lay the Gulf of Salamis, the scene of the naval triumph of the Greeks over Xerxes. At that time the hill was a "flowery" one, and swarmed with bees, from whose hives the best of the Attic honey was obtained. The hill is now where it was, and as it was when Themistocles fought the Persians, covered with wild thyme, giving employment to those humble laborers, who in uninterrupted succession, have occupied the spot, from the most prosperous days of Athens to the present hour. They are kept in hives of willow or osier, plastered with clay or loam within and without. For upward of two thousand years the Hymettian bees have been on record, surviving the revolutions which have changed the features and uprooted the population of Attica, according to the poetical saying,

> "Their race remains immortal, ever stands
> Their house unmoved, and sires of sires are born."

Next to these pleasant caterers for the healthy, mention may be made of a class extensively used in medicine. In former times, odd ideas prevailed respecting the medicinal value of insects, which if true, would certainly diminish expenditure with the apothecary; for lady-birds have been recommended in cases of measles, earwigsin nervous affections, cockchafers for the bites of mad dogs, ticks for erysipelas, and woodifice as aperients. But, passing by such vagaries, the Spanish fly, or blister-beetle, *cantharis vesicatoria*, is an insect of commerce indispensable to allopathic *materia medica*. It is found sometimes in England, but this is a rare occurrence, though it appeared in great numbers in Essex, Suffolk, and the Isle of Wight, in the summer of 1837, frequenting ash trees, on the leaves of which it feeds It is more common in France, abundant in Spain and Italy, though, notwithstanding the name, the greatest quantity is obtained from Astrachan, in Russia. The Russian insects are considered superior to those from other quarters.—When alive they exhale a pungent volatile principle. Persons employed in collecting them have the face and hands protected by coverings, from contact. This is usually done morning and evening, when the insects are somewhat torpid, by shaking or beating the boughs of the trees they infest with poles, and receiving them on cloths spread upon the ground. They are then killed by exposure to the vapor of hot vinegar, dried in ovens, or on hurdles in the sun, and packed for the market in casks and small chests. Fifty of the dried carcasses scarcely weigh a drachm. The *cantharis* is about three-quarters of an inch in length, of a light shining green color, with bluish-black legs and antennæ. When touched the insect feigns death.

After the luxurious and healing insects, we come to a much more tiny and numerous class to which the name of dyers may be applied. Cochineal, used to produce our brilliant scarlet, crimson and carmine dyes, is the dried carcase of an insect, *coccus cacti*, found in Mexico, Georgia, South Carolina, and some of the West India Islands, where it lives and propagates upon the *cactus cochinillifera*. The plant produces a fruit, which is also of a purple color, and is supposed to contain the coloring matter. The insect is of small size, seldom exceeding that of a grain of barley, and was generally considered a vegetable substance for some time after it began to be imported into Europe. It is on record that a ship being wrecked in Carmarthen Bay, of which cochineal formed a part of the cargo, the article was turned into the sea as damaged grain, and the bags alone preserved. In Mexico, the principal seat of production, where the insect is reared with care, there are two varieties; the best, or domesticated, called *grana fina*, or fine grain; and the wild, named *grana sylvestra*. The former is nearly twice as large as the latter, probably because the size has been improved by the favorable effects of human culture. The insects are detached from the plants on which they feed by blunt knives, and killed by being dipped in boiling water, then dried in the sun, and placed in bags for exportation. In 1851, our imports included 22,451 cwts. of cochineal, somewhat more than half of which quantity was retained for home consumption. As each pound is supposed to contain 70,000 insects, the enormous annual sacrifice of insect life to supply the markets of the world may be readily imagined. The insect has been introduced into Spain, Malta, Algeria, Java, and India, but the valuable article of commerce is still the produce of Mexico.

Kermes-grains, another dye-stuff, consists likewise of the dried bodies of an insect belonging to the old world, *coccus ilicis*, of kindred species to the true Mexican cochineal. It is found upon a small kind of oak which grows abundantly in the south of Europe. The tree clothes the declivities of the Sierra Morena, in Spain; and many of the inhabitants of the province of Murcia have no other mode of obtaining a livelihood than by gathering its animal tenants. There are several other species,

one of which is called the scarlet grain of Poland, *coccus polonicys*, being found on the root of a perennial plant growing in the sandy soil of that country and other districts. The word kermes is of Persian or Arabic origin, and signifies "a little worm." In the middle ages, the material was therefore called *vermiculus* in Latin and *vermilion* in French, which latter term has curiously enough been transferred to the red sulphuret of mercury. Before the discovery of the western world, it was the most esteemed substance for dyeing scarlet, and had been used for that purpose by the Romans and other ancient nations from an early period. But notwithstanding their acquaintance with it, the real nature of the product was unknown, being supposed to be a vegetable grain, fruit or excrescence, and not finally established to be an insect, assuming the aspect of a berry as it did in the process of drying, until a recent date. Through several centuries in Germany, the rural serfs were bound to deliver annually to the convents a certain quantity among the products of husbandry. It was collected from the trees upon St. John's day, with special ceremony, and was called *Johannisblut*, "St. John's blood," in allusion to the day and the color. Many a proud cardinal has been indebted to this diminutive creature for the red hue of his hat and stocking.

BLOOD STOCK.

It seems impossible to make some people understand what is meant by the expression, "Blood Stock." They will twist, and turn, and laugh at the idea that any farmer, by judicious selections, has reared a herd of cattle that inherits the principal traits of the animals selected to begin with.

They laugh at the idea of keeping the very best for breeders—and will tell you how a chance animal of their own has excelled the herds denominated "blood stock."

And yet when you ask what reliance they can have on the progeny of chance animals, they will tell you that they have bred from the same for sixty years in succession, and therefore they are confident of success in rearing their calves.

Now this is precisely the doctrine of the advocates of "blood stock." They breed from the best, and cast off the inferior animals. They want no crosses with inferior animals, and are confident that by pursuing this course, they are on the *right* road to perfection, however long that road may prove.

Still there is another class of farmers who profess to think that the most promiscuous intercourse between the males and females of cattle, will tend to produce better dairy cows and better working oxen, than can be produced by any kind of selection.

These farmers inquire what is meant by "blood stock." They would prefer to buy from the most promiscuous herds of cattle because they occasionally find an extraordinary cow that yields more than the average of blood stock. If one in fifty is found to excel the average of select stock, they seem to think they have proved their case, and are ready for judgment.

But what progress do such people make in farming? The same which a gambler makes to get a fortune. He runs for luck, and makes but little calculation, except upon the want of information of those who may be induced to play with him.—*Ploughman,*

For the New England Farmer.

HO! FOR THE WEST.

MR. EDITOR:—A certain man in West Roxbury lately got the Western fever, and as one step towards its treatment, sold out a fine milk run, from which he had made a good living, and laid by some money against a rainy day. His son on going his rounds for the last time, called on an old sea-captain, whom they had supplied with milk for some years, after pouring out his accustomed supply, the son told the captain that Mr. W—— would bring his milk to him in future, as his father had sold out to Mr. W——, and contemplated going West. "D—— the West," abruptly replied the old salt.—"Tell your father that when he has been around the world as much as I have, and seen the whole elephant, he will be glad to come back and settle in good old New England," and without any further remark resumed his chair.

I have no doubt very many have found the rough prophecy of the sea captain sadly true to their experience. Very few who go West, so far as I can learn, (and my experience embraces a large number,) acquire property strictly by farming. They have got their money either by speculation or by the rise of property on their hands. So far as real legitimate farming is concerned, it will be found, I think, that the East compares very favorably with the West, and so far as *small* farmers are concerned, rather exceed the Western. Of course I have nothing to say in regard to the ease by which crops are produced in the one compared with the other—simply the amount of money obtained, acre for acre. There is no question but certain crops are produced very much easier in the West than they are in the East, or ever will be. Now then the question comes up—does it pay—this going West to engage in farming, if that is the only object? Very few persons who have been nurtured and brought up all their days in the East, and perhaps never have been fifty miles from their birth-place, form very correct ideas of what this young West really is, until they arrive where the elephant can be seen in all his gigantic proportions, and then they do see very truly a magnificently large animal—handsomely proportioned for one of its size—but after all, it's *all* elephant, and nothing else. It seem to me that no man in his right sense would think of going West and taking up government land at $1,25 per acre. The chances are, as a general thing, that he will die before he gets anything like his good New England civilization and privileges about him, will deter him from this rash act. What then?—why, he will purchase a farm with more or less improvement, and get rich by the rise of his lands in value, that's all—not by farming Now I ask our young New England men again, if under all the circumstances, and I have only suggested some of them, this going West is a paying business? I think not. Not as long as good farms, in delightful townships, with all our puritan priviliges, can be purchased for from $1000 to to $3000 in any of these New England States. How many are there now "out West" who wish themselves back again, and in their old homes—I could not guess. No doubt, however, they are legion, and I *guess* the old sea Captain's *blessing* has more than once passed their lips.—Take my advice, boys, and stay at home.

Oct., 8th, 1855. TIRRELL.

CORN POETRY.

We find in the Iroquois *Free Press* some poetry upon "Indian Corn" written in a style a little homespun, but after all with a kind of ring about it which may commend it to the boys. The verses go off in a real strong Mormon sort of way.

The West can boast of glorious streams,
And prairie's grandest lawn—
Of lake and forest old and green,
But most of Indian corn,
Large fields of Indian corn

From peaceful sleep the plowman wakes,
And rises with the morn;
Deep furrows all day long he makes
Through rows of Indian corn—
Long rows of Indian corn.

'Tis sweet when summer suns go down,
When winds have ceased to blow,
To list its rustling, crackling sound,
And think we hear it grow;
It seems so glad to grow.

I love to pull it from the stalk
When it is in the milk,
And husk it out its sheath, and talk
Of its soft shining silk—
Its glossy floss, its silk.

And when at noon aside we dash
Our work for bell or horn,
Give me a dish of succotash
Or ears of Indian corn—
Hot ears of tender corn.

I'll take it with a true delight,
And costlier dishes scorn,
For nothing tempts the appetite
Like ears of roasted corn—
Sweet ears of roasted corn.

Then when its sheaves stand thick about,
And fruits the fields adorn,
How gushes out the merry shout
From huskers of the corn—
The yellow, golden corn.

Where freedom floats on every breeze,
And fields of Indian corn
Are spread out on the land like seas!
I joy that I was born—
Blessed land of Indian corn.

For the New England Farmer.

GRAFTING YOUNG TREES.

Messrs. Editors:—My attempt to graft the pear upon the Amelanchier, or Shad bush, has not been successful this year, mainly in consequence, as I think, of hasty and imperfect operation. None of the grafts have taken; but as I am perfectly aware that they did take on the same stock, and grew vigorously, forty years ago, as mentioned in my last communication, I do not consider the point decided against the use of the shad bush for a stock in lieu of the quince; and I look for a more favorable issue of the next trial.

Allow me to bring to your notice another horticultural question. Possibly some of your correspondents may have determined it already, from their own experience. It is presumed that seedlings are often raised from garden or orchard apples for the purpose of forming stocks. The question is, will such stocks be serviceable for grafting with scions from those trees from which the stocks derived their origin? Is it probable that trees so obtained would derive either advantage or detriment with regard to the quality of the fruit, or the duration of the tree? Or would the case be simply immaterial?

On yet another point your opinion would be very acceptable—with respect to the feasibility of establishing an orchard in less than the ordinary time, by grafting young trees where they stand, without subsequent removal, instead of transplanting grafted trees. For instance, in this quarter, although situated in the farthest north and east, and exposed to the icy blasts of the northern Atlantic,* apple trees appear to spring up spontaneously. Whole fields are dotted over with them. I have such a field. The soil is gravel, on limestone rock. It never was much cultivated; and for many years, not at all. The white weed, or ox eye daisy, has been in undisputed possession of it, during forty years; but it contains numerous young apple trees, no doubt sprung from seed that has been casually dropped. There are old trees not distant, supposed to have been planted in the time of the French occupation of the country. They may be eighty or one hundred years old, and still thrive luxuriantly, in defiance of all sorts of ill treatment. Might not this field be expeditiously converted into a valuable orchard, by grafting the young trees where they stand? The question afterwards would be—ought they to receive any cultivation, and of what kind? They appear not to require it in the natural state.

A reply to these questions would, undoubtedly, prove interesting to others, as well as to

Sept. 12th, 1855. Far East.

* As late in the season as 17th of May, I have witnessed the sea filled with floating masses of ice as far as the eye could reach.

A GOOD INVESTMENT.

We had the pleasure last week of going over the farm belonging to J. W. Patterson, Esq., the present Mayor of our city, and noting the results of some experiments he has been trying during the past season. This farm is about a mile east of the bridge, and is principally a clayey loam. About 45 acres of it last year was covered more or less with bushes, being that part from which wood had been cut for market. Last summer, during the height of the drought, he employed some persons to cut the bushes, but soon after beginning the work, some boys thought they would set fire to a hornet's nest which they met with among the bushes. The fire spread from the hornet's nest and soon burnt over the whole piece, and was with difficulty restrained from doing damage elsewhere.

It now became necessary to put the land into a condition to bear crops. Accordingly, late in the fall, just before the frost had shut the ground up, Mr. Patterson had a portion of the ground harrowed, and on it he sowed winter rye, together with herds grass, clover, and red-top. This was suffered to remain without being harrowed at all, and the winter soon setting in, none of the seed germinated until the spring. After the spring opened, a part of the rye came up, and to appearance all of the herds grass and red top, but not much of the clover. The rye that came up grew very well, but the herds grass and red top came on vigorously, and produced a bountiful crop of grass which was cut and secured at the usual season.

Mr. P. estimates the amount of hay obtained from the grass seed thus sown in the fall, and which did not come up until spring, to be not less than twenty-five tons. We did not note what probable number of acres of the forty-five were thus laid down. The balance of the piece was laid down this

last spring, and is covered with a heavy crop of grain, and the catch of grass is excellent.

The crop consists of four bushels sowing of spring wheat, and thirty-three bushels of oats. The wheat is the variety known by the name of Scotch Fyfe wheat,— this is a variety not usually cultivated among us. It is a bald wheat, straw of medium height and the berry is white and plump. It is now ready for the sickle, though not sowed until the 25th and 26th of May last. We saw no signs of weevil or rust among it, and we should judge that it would yield twenty-five bushels to the acre.

But what we wished more particularly to remark is this, viz: that the money invested in this enterprise is well invested. We find that our farmers may be divided into two classes in regard to the subject of expending money in agricultural improvements on their farms. 1st. Those who *would*, but cannot. 2d. Those who *can*, but *will* not.

Mr. Patterson expended not less than $600 on this 45 acres. This is a great deal of money to be thus used in our latitude. Many of our farmers, instead of putting $600 to such a use, would look at it a long time before doing any such thing, and most probably would have used it in skinning some poorer neighbor by shaving his note so closely that the discount would far outweigh the principal—the princi-*ple*, too.

But this investment has proved a very safe and profitable, and, what is better yet, a very honest one. Mr. Patterson will realize at least a return of $400 on the $600 invested, and that too in one short year, and the land still be in a condition to return as much another year. Can any of your note-shavers and fancy stock jobbers show a better return for cash invested?—*Me. Farmer.*

For the New England Farmer.

FROZEN SAP BLIGHT.

MR. EDITOR:—Dear Sir,—permit me, through the columns of the *Farmer*, to express my views in answer to J. W. W., as I, too, have suffered from the same cause, viz: *frozen sap blight on the trunks of apple trees.* When it is recollected that the first part of last winter was very mild, and that the latter part was the coldest we have experienced for thirty years, I think we may safely conclude, that during the mild weather, the sap had been attracted to a certain extent up into the trunks of the trees, when the intensity of the cold which followed, caused the sap vessels to burst, and hence the dead bark. I have one fine Hubbardston tree on which there is a space about eight inches wide, killed entirely around the tree; this having pealed off, I prepared eight scions, taken from a young Greening tree, and inserted one end of each under the live bark, above and below the dead part, and covered the wounds with grafting wax. They soon united and have made a fine growth, and the tree ripened several apples. I have about one hundred and fifty apple trees, of ages from two to twenty years, that have rarely escaped a wash of soap-suds twice in the course of each year, but I have no reason to suppose them any the worse therefor. E. C. H.

East Bridgewater, 1855.

THE COFFEE TREE IN MAINE.—Mr. Drew, of the *Rural Intelligencer*, says that a friend of his in the town of Mt. Vernon, has for the last three years raised the coffee plant in the open air, from seeds brought from Cuba. It grows about two feet high and produces its berries in pods, something like peas. The plants, he says, have matured, even this cold season, and the berries ripened without injury from frosts. He has promised us some of the coffee of this year's growth to plant in our own garden, for he desires that we also should test the truth of his experiment.

For the New England Farmer.

THE WEATHER AND CROPS.

NOTES ON THE WEATHER AND CROPS IN THE YEARS 1854 AND 1855.

MESSRS. EDITORS:—Notwithstanding all our boasted knowledge and progress in the various branches of farming, we see it verified that "Paul may plant and Apollos water, but it is God which giveth the increase." Deep plowing, scientific manuring and improved cultivation, do not warrant us great crops. We see that from different causes our crops have fallen short the two past seasons, under any system of management which intellect could devise. I shall commence my notes at the first of May for each year. I have not gone to the accuracy of stating the degrees of heat and cold by the thermometer.

1854.

May 1, moderate; 2, very warm and pleasant; 3, rainy with lightning; 4, great rain from north-east; 6, snow squalls, very cold; 7, Sunday morn, froze so hard as to bear my weight on a puddle in my barn-yard! the coldest day I ever saw in May; 8, cool; 9, warm and pleasant; 10, do; 11, thunder shower and plenty of rain; 12 and 13, warm and pleasant; 14 and 15, rainy, very growing time; 16, very warm and pleasant; 17, wind east, apple trees begin to blossom; 18, showery all day; 19 and 20, fine and fair; 21, light thunder showers; 22, fair; 23, cool; 24, slight frost; 25, rain; 26, eclipse of the sun, and cool to the end of the month.

June 1, slight frost, grows dry; 2 to 7, continues dry; 8, soaking rain; 9, growing time; 10, showery; 11 and 12, cool; 13, little shower; 14, warm; 15, warm, thunder-shower and plenty of rain; 16, 17 and 18, good weather; 19, thunder-shower and little rain; 20, ground well soaked, rose-bugs appear; 21, sudden change in the weather, wind northeast, very cool; 22, cloudy and cool, wind north-east, and continued so till 24, when it cleared off; 25 and 26, cool and dry; 27, do; 28, warmer, thunder-shower and plenty of rain; 29, fair and warm; 30, cloudy, cool and rainy, vegetation looks well, corn shows the tassel earlier than for many years.

July 1, fair and cool; 2 to 11, very warm and dry; 12 and 13, cool and dry; 14 and 15, rainy and cool, wind north-east, ground well soaked; 16 and 17, foggy, 18 and 19, good hay weather; 20, 21, extreme heat; 22, cloudy, wind north-east; 23, great heat and soaking shower; 24, warm thunder-showers all day, wind south; 25, the third rainy day; 26, cloudy; 27 and 28, cooler, good hay weather; 29 to 31, warm and dry.

August, 1, 2 and 3, warm and dry; 4, fine rain; 5, great dew—through July to this date, but little dew. 6 to 12, cooler and dry, no dew; 13, very hot and dry, no dew; 14, cooler, wind north-west, very dry; 15, light frost, dry; 16 and 17, fair, cool and dry; 21 to 30, very dry, no dews, fires raging

in many places; light frosts on the mornings of 28 and 29; 31, warm and dry.

September 1, rain, first since August 4; 2 to 10, plenty of rain, weather fine, fires extinguished, growing season at an end. From the 4th to the last of August the drought was the most rapid, and the evaporation the greatest I ever knew in so short a space of time, which may be accounted for from the circumstance of the great heat and deficiency of dews.

1855.

May 1 to 8, cold, frosty and dry; 9 and 10, wind north-east, cold and cloudy; 11, moderate; 15, warm and dry; 16, began to rain, which continued through the night; 17, fair and cool; 18 to 23, very cold and cloudy, a few drops of rain; 24 frost, A. M.; warmer, with lightning, P. M.; 25, warm; 26, cold and windy; 27, 28 and 29, frosty mornings and cold dry days; 30 and 31, cool and dry, apple blossoms begin to fall. May has been a cold, dry month who can wonder that the crops of English hay should be short and the other crops backward at the end of such a May?

June 1 to 3, violent south wind lasting three days doing much damage, accompanied with clouds and very little rain; 4, 5 and 6, cool and dry; 7, rainy, wind north-east; 8, windy and cold; 9 to 12, light showers and cool; 13 and 14, cool; 15, rain; 16 and 17, cool; 18, frost; 19, rain through the night; 20, cool, all vegetation very backward; 21, warmer, with soaking showers; 23, warm and growing weather with plenty of rain up to the 27th; 28, 29 and 30, extreme heat and a little rain to finish out the month.

July 1 and 2, hot and dry; 3 and 4, fine weather; 5 and 6, showers; 7 and 8, great north-east rain; 9 and 10, fair and cool; 11, rainy; 12 to 19, warm, good haying; 20 to 31, showery, poor hay weather. July has been a favorable month for vegetation.

August 1, the first fair day for a long time; 2, 3 and 4, good hay weather; 5, 6, fair, plenty of dew; 7, fine shower; 8, cool; 9, soaking rain; 10, fair and cool; 11 to 15, cool; 16 to 17, showers; 18 to 22, cool and frosty mornings; 23, warmer; 24 and 25, fair and warm; 26, light rain; 27, very cool; 28 to 30, fair, cool and frosty mornings; 31, a hard frost which put a check to the growth of vegetation, injured the corn and other crops, and nearly ruined the cranberry crop, and put an end to the growing season for the present year.

Thus we see in defiance of all our wise plans and anticipations, our corn, cranberries and many other productions were cut off or injured last year by heat and drought, and the present year by cold and frosts; but, thanks to a good Providence, we have enough of every good thing left but gratitude to the bountiful hand which has dealt with us so liberally heretofore. Our best policy will be to "go ahead" with renewed energy in preparation for another year by collecting materials for manure. I have lately dug out and carried on to the "field of operations" some 300 loads of mud in preparation for another attempt at supplying our bodily wants, independently of any nation living at any of the four points of the compass. S. BROWN.

Wilmington, Sept. 12, 1855.

NEW YORK HORTICULTURAL REVIEW.—Some time since, we received the first number of a work with the above title, edited and published by C. REAGLES, Esq., New York city. It is illustrated with landscape sketches, fruits, plans of buildings, &c. It is printed in convenient 12mo. or small 8vo. form, and filled with well written, practical articles. Among the contributed articles is an excellent one on shade trees, by our old friend and correspondent, WILLIAM BACON, Esq., of Richmond, Mass. The articles, generally, are attractive, and indicate a knowledge of the wants of the people on the part of the editor. We wish the enterprise great success.

EXHAUSTION OF THE SOIL.

"There is, on an average, about one-fourth of a pound of potash to every one hundred pounds of soil, and about one-eighth of a pound of phosphoric acid, and one-sixteenth of a pound of sulphuric acid. If the potatoes and the tops are continually removed from the soil, it will soon exhaust the potash; if the wheat and straw are removed, it will soon exhaust the phosphate of lime; if corn and the stalks, it will soon exhaust the sulphuric acid. Unless there is a rotation, or the material that the plant requires, supplied from abroad, your crops will soon run out, though the soil may continue rich for other plants."

An acre of soil twelve inches deep would weigh, say 1,600 tons. According to the above figures, it would weigh 8000 lbs. of potash, 4000 lbs. of phosphoric acid, and 2000 lbs. of sulphuric acid. Estimating that potatoes contain 20 per cent. of dry matter, and that 4 per cent. of this is ash, and that half of the ash is potash, we only remove in a crop of 250 bushels, 60 lbs. of potash. Say that the tops contain 20 lbs. more, and we have potash enough in an acre of soil to produce a crop of 250 bushels of potatoes, each year for a century!

A crop of wheat of 30 bushels per acre, contains about 26 lbs. of ash, and half of this, say, is phosphoric acid. Allowing that the straw, chaff, &c., contain 7 lbs. more, we remove from the soil in a crop of wheat of 30 bushels per acre, 20 lbs. of phosphoric acid. According to the above estimate, then, an acre of soil contains sufficient phosphoric acid to produce annually a crop of wheat and straw of 30 bushels per acre, *for two hundred years!*

We will pursue the calculation no farther. The writer of the paragraph quoted above, selected out the crops and elements best suited for his purpose; but it will be seen, that even according to his own estimate, there is sufficient potash and phosphoric acid in the soil to give the present wicked generation all the potatoes and wheat they may need.

But let us take another view of the subject. No intelligent farmer removes all the potatoes *and tops*, all the wheat, straw and chaff, and all the corn, stalks, &c., from his farm. According to Dr. Salisbury, a crop of corn of 75 bushels per acre removes from the soil 600 lbs. of mineral matter; but the grain contains only 46 lbs. The remaining 554 lbs. is contained in the stalks, leaves, sheaths, husks, tassels, &c., all of which are generally retained on the farm. It follows from this that, when only the grain is sold off the farm, it takes more than 13 crops to remove as much mineral matter from the soil as is contained in the whole of one crop. Again, the ash of the grain contains less than 3 per cent.

of sulphuric acid, so that the 46 lbs. of ash in 75 bushels of corn contains less than a pound and a half of sulphuric acid, and, thus, if as is estimated, an acre of soil contains 2000 lbs. of sulphuric acid, we have sufficient for an annual crop of 75 bushels per acre for fifteen hundred years!

Intelligent wheat-growers seldom sell their straw, or chaff, and frequently consume on the farm nearly as much bran, shorts, &c., as is sent to market with the grain. In the Natural History of New York, part 5, it is stated that a crop of wheat, in Western New York, of thirty bushels per acre, including straw, chaff, &c., removes from the soil 144 lbs. of mineral matter. Genesee wheat usually yields about 80 per cent. of flour. This flour contains only 0.7 per cent. of mineral matter, while fine middlings contain 4 per cent. Coarse middling, 5½; shorts, 8; and bran, 8½ per cent. It follows from this that, out of the 144 lbs. of mineral matter in the crop of wheat, less than 10 lbs. is contained in the flour. The remaining 134 lbs. is found in the straw, chaff, bran, shorts, &c. Even, however, if none of the shorts is returned to the farm, the 30 bushels of grain remove from the soil only 26 lbs. of mineral matter; and it would take more than five crops to remove as much mineral matter as one crop contains. Allowing that half the ash of wheat is phosphoric acid, 30 bushels remove only 13 lbs. from the soil, and if the soil contains 4000 lbs., it will take 207 crops of 30 bushels each to exhaust it.

We commend these facts to the consideration of the writer of the paragraph we have quoted. If his estimates are correct; if the soil contains as much potash, phosphoric acid and sulphur as he states, we need have few fears of waking up some morning to find all the precious elements of crops departed from our soils forever.

We should just observe that the idea, embodied in the latter part of the paragraph, has no foundation in fact. If a soil is *exhausted* of potash, or of phosphoric acid, it will not "continue rich for other crops." Not a plant that we commonly cultivate, can grow upon soil destitute of *any* of the mineral elements of plants.—*Country Gentleman.*

FARMS ON CAPE COD.

Yesterday we were conducted over the excellent farm of James Howes, Esq., who for the last few years has made great improvements upon his land and barn. He has brought a patch of land he owns, which is situated upon a high hill, into a good state of cultivation. Though upon this land he has expended much labor and money, he has begun to reap the advantage of what he has done. His crops of carrots and ruta baga turnips are most excellent. When he sowed his rye last season there was mixed with his seed considerable quantities of wheat; by this accident he has discovered that a portion of his land is adapted to its cultivation, for when his crops was matured, he found that the ears of wheat were well filled out, and in fact, were in every way equal to what he had seen in any part of the country. This fall he has sown a piece of his land with wheat, and the recent rains, combined with the clemency of the season, have caused the young and tender blades to appear, and altogether, present appearances seem to indicate that his experiment will be successful.

The barns of Mr. Howes are large and airy; he has accommodation for twenty or thirty head of cattle. And some persons, who are bound to stick to the old methods of saving and making manure, would do well to pay him a visit and observe the capital arrangements he has, in connection with his barns, to save the refuse (which is often swept out and made unavailable for farming purposes;) he carefully preserves all he can, and causes it to be passed into his manure cellar, where it is compounded with the rest of the waste matter which goes to make up the dunghill.

Altogether, this is one of the best farms we have seen on Cape Cod, and those who contemplate improving their land and barns, would do well to call upon Mr. Howes and see what industry and scientific farming can do towards turning the desert into a fruitful field.—*Barnstable Patriot.*

For the New England Farmer.

AN EASIER WAY THAN FARMING.

BY ICHABOD HOE.

"What is the use in digging on the farm, where one is exposed to all sorts of weather, wet and cold, hot and dry, just barely squeezing along and making the ends of the year meet, when one can work in a shop where it is warm and dry, and in the shade at least in hot weather? Dig as hard as we will, we can't make as much as those who work at boot-making, and don't work much more than half the time either. I'm going to quit farming and turn one of the rooms of my house into a shop, and I and my boys will go to making boots, and I advise you to do the same."

"I know there are hardships in farming, and rather slow pay, but it's a pretty sure pay, and I believe I will keep digging. It is said to be 'hard to learn old dogs new tricks.' Farmers have to be exposed to all sorts of weather, but if they are careful, it is no worse than being shut up in a shop all the time and confined to a bench."

"O, a man needn't work all the time on the bench, he can make his dollar and a half a day in the shop and not work much more than half the time, and the rest of the time he can work out of doors, if he has a mind to."

"Yes, but that 'mind to' is apt to be lacking; I have noticed in those who get accustomed to the shop, they don't like to go out doors to work."

"Ah! that's because it is so much easier to work in the shop, and I'm not disposed to expose myself to all weathers and work like a dog when I can get along a great deal easier, and a good deal faster, another way. The thing is 'done' with me, and I advise you to follow suit, and do as all the rest of the world—that are smart enough—are doing, get a living some other way than digging on the farm for it."

Up to this time, these two neighboring farmers had maintained a sort of friendly rivalry in the management of their farms. Mr. Russel, the one who was going to quit farming, had the largest, and naturally the best farm, but Mr. Burton, his neighbor, *"took the papers,"* and brought a little more judgment and skill to bear upon his acres, and seldom failed to raise a little the largest crops on less land. Taste and inclination, too, made farming lighter to Mr. Burton than to his neighbor, who the reader has already observed, thought a good deal of getting on easily and without exposure. His sole stimulous and principle of action in man-

aging his farm, was, to get the most possible for the present, without reference to the future. Under this system, he found that every succeeding year required closer engineering to make the ends meet, and this, too, notwithstanding his two boys had got big enough to do almost a day's work each. Mr. Burton had followed quite another system in the management of his farm, and by the help of his boys, who were twins, about the age of Mr. Russel's second boy, he found his income from the farm slightly increasing. Farming at that time was at a pretty low ebb, and every body, as Mr. Russel said, seemed to be leaving it to get a living and property some other way.

The most casual observer would see at a glance that Mr. Russel was not a man of much taste, from the appearance and arrangement of his buildings. His house, which he had built himself, stood close by the road-side, and his barn stood nearly opposite to the house on the other side, still nearer the road than the house. No trees or shrubs sheltered or adorned either the house or barn. His neighbor Burton's was somewhat unlike this. His place manifested no particular refinement of taste, but it had a different "air" about it. It stood farther back from the road, and had several fine large cherry trees near it, and two towering pear trees, and there were shrubs and flowers around and near it, which gave it a cheerful aspect. And then the barn and out-buildings were back from the house, and nearly out of sight, hid by the apple trees between them and the house.

Mr. Russel had the shop-room soon finished off, and a hand hired to come and learn both himself and sons to make boots. He had three sons in all, but the youngest was too young to do much; he had one daughter. Mr. Burton had two sons—the twins—and three daughters.

Russel applied himself with a will to his new trade, and Burton dug away upon the farm, with, perhaps, a little more energy and determination than ever. For two or three years Russel gained upon his neighbor in worldly thrift. Times in his new business were good, and money flowed in easily, but, some how, it seemed to get away unaccountably fast. The first season after Russel and his sons begun on their boot-making, they planted a piece to potatoes and a small patch of corn, and had what was called a garden too, but it was very little attention they all got. Occasionally Mr. Russel himself would get out with a hoe, but the boys usually shunned that kind of recreation, and after the first season, they all concluded they had rather take a few more stitches, or drive a few more pegs a day, and buy what was needed in the family, in perference to working out doors for exercise, to raise it, and to take their exercise in more agreeable ways. But these agreeable ways were extremely apt to cost money in some shape, or to lead to it, at least. A "quarter" or *two* every little while, and a dollar now and then, were but trifles, and soon earned! So it went to the end of the year, when it was found that there were not half the "shot in the locker" they expected to see there when the year began.

One cause of this was found to be owing to the amount of doctors' bills they had to pay; for, from some cause or other, there had been a good deal of sickness in the family of late. In the winter they were some of them on the borders of a fever from a "terrible cold," and in summer all sorts of complaints troubled them. But, notwithstanding all these "pull backs," they made more money than they did at farming, and *could see more* at the end of the year.

Meantime farmer Burton kept on the even tenor of his way—improving his farm somewhere every year; sometimes reclaiming a piece of low ground by ditching and draining, and improving the high ground with the muck from the low, and the low with the sand or loam of the high. As the "twins" grew up toward manhood, they felt, like all young men, as though they could do wonders for themselves by leaving the old hive and striking out to make their fortunes on their own hook; but the father's experience had taught him that "in union there is strength," and he advised them to remain at home with him and he would allow them so much a month, or if they preferred, they would all work in common, and each share such a part of the profits. The advice of the father, aided by the persuasions of an excellent mother and affectionate sisters, who all aided in making home pleasant, overcame all inclinations to go abroad. The father and sons formed a sort of joint stock, or rather, joint labor company out doors, and the mother and daughters its counterpart in the house. The mother was a very intelligent woman, and acquainted with the ways of the world to more than an ordinary extent for one in her place—having taught school in her younger days.

As has been said, Mr. Burton's farm consisted of less than a hundred acres, containing, in fact, but seventy. For a while he thought of buying a part of his neighbor Russel's, but he found the more and better a piece of ground was cultivated, the more a great deal it produced. Acting on this hint, it was not long before they found they had as much land as they could manage with profit. Their farm was situated ten miles from Boston, and in two or three years from the time to which this story refers at its commencement, a railroad was constructed through the town, and not far from the farms of Mr. Russel and Mr. Burton. This gave facilities for getting the products of the farm, its fruits and early vegetables, to market, and Burton and his sons found each year added to their income.

There came to be a great difference between the two homes of the two families here spoken of. The Russel family were all engaged upon boots in some form or other. The mother and daughter "bound, stitched and fitted" boots, and the father and sons made them, and when the boot business was good, they handled a good deal of money. But all must have times for recreation, and the only recreation that suggested itself to the younger members of Mr. Russel's family, was some game, or a ride, or hunting and fishing, or something of this sort. Home was a place to work, to eat, and to sleep in; but they never thought of it as a place to enjoy themselves, and there was little in fact there attractive. Scarcely a newspaper was to be found there, and few books beside the Bible, psalm-book and the greasy "dog-eared" school books, that had been used in school. We say, "had been," for since the boot-making had begun, little time had been spared to going to school.

But it was quite otherwise in the family of Mr. Burton; each member of the family took a periodical of some kind! so there were no less than four weeklies and three monthlies. Among these were some of the best agricultural and horticultural periodicals published in the country, the rest were re-

ligious, political, or literary, and they were all read more or less by all the family. But the great feature of attraction and source of enjoyment to the family was the plat called "the garden," and it was worthy of its name. Each one had his or her distinct part set off by metes and bounds, and each cultivated it just as they saw fit.

The mother had in her part the useful herbs, pie-plant, asparagus and a row of gooseberries which a friend had sent her, of a choice kind. The father paid attention mainly to the kitchen garden vegetables, onions, beets, carrots, early potatoes, &c., and around his own and Mrs. Burton's was set out a row of currant bushes, red and white; and then they had a patch they cultivated in common, in which were to be found cucumbers, early peas, beans, &c. Then each of the young folks had whatever fancy or inclination dictated, and there was a generous rivalry between them as to which should exhibit the most attractive territory. The girls each planned her own "improvements," and the boys rendered all needed assistance in spading, planting trees, or constructing arbors, or any thing else that required their aid. Their gardens, of course, abounded mostly in flowers and shrubs, though among these were to be seen strawberry beds, in the most perfect condition, tomatoes, melons, and a variety of other fruits. The "twins" went mostly into tree-fruits, as cherries, peaches, pears and apples. Calvin was mainly interested in cherries, plums and peaches, while Luther as assiduously cultivated pears,—dwarf and standard—and apples; and there was not a day in the year in which the family were not fully supplied with fresh fruits. The apples were not gone from the bins in the cellar, before strawberries, early cherries, &c., were abundant; then currants, gooseberries, raspberries, early apples and pears came again, and so the delicious circle was seldom broken throughout the year. Owing to these ripe fruits to season their food, diseases were seldom known in the family.

It was a pleasing sight to see the whole family after supper, toward the close of day, enjoying themselves in the garden, admiring each others' productions, eating fruit and nursing some pet flower or tree. This was happiness, simple, pure and elevated. It was considered almost a calamity to any member of the family to be away from home at such a time. None minded working hard during the day, for rest and recreation awaited them after the day's work was done.

They had struggled on through "hard times for farmers," when every other interest seemed to prosper. But there was a great change approaching; the knowing ones saw the indication before it was felt by the mass. The prices of provisions began to rise, and in a short time the only class that seemed to prosper was the farmer. The boot business fell to the lowest ebb; little or nothing to be done, and only the most ruinous prices paid for labor, ruinous to the laborer.

This state of things began to be felt in mid-summer, when it was too late for such as had land to cultivate it. Mr. Russel was caught with the rest. He had sold off a part of his farm, but he had many acres left. Winter came on with flour at twelve dollars a barrel, corn one dollar fifty cents a bushel, and potatoes a dollar and a quarter, and his cellar and garret both empty, and work hardly to be had if to be done for nothing. He had laid up some money, but by the time spring opened he could nearly see the bottom of his purse. But worse than al l this was the result of his "not being exposed to al sorts of weather," but of his being *exposed* to the *confinement* of a *shop* and to the bench. His own system had become diseased, so that he was scarcely a day free from pain; and one of his sons had all the marks of a consumptive about him, and all the family were ailing most of the time. One day during the winter Mr. Russel happened in to his neighbor Burton's as they were just setting down to dinner, and beside the usual dishes found on a farmer's table, there was a large dish of apples, another of pears, and still another of grapes! "How on earth can you afford to buy such things these hard times?" inquired Mr. Russel.

"Buy," responded Mr. Burton, "these were not bought, we raised them!"

"What! you don't say you raised those grapes and the pears too!"

"Certainly I do! I did not raise them myself, but Anna raised the white grapes on her arbor, and Mary and Julia raised the purple ones on theirs, and Luther and Calvin raised the pears and apples.'

"Well," said Mr. Russel, "I'm going to beg one of each kind of the apples and of the pears and a bunch of each kind of grapes to carry home; and as sure as spring opens again, and I'm a live man, I'll go back to my old business of farming!"

ANTWERP RASPBERRIES.

The *Poughkeepsie* (*N. Y.*) *Eagle* gives a very good account of the details and extent of one branch of "Fruit Culture" thus:—

But few persons are aware of the extent and importance of this comparatively new branch of the Agricultural, or rather Horticultural business.

The most extensive operations in this part of the country, are carried on at Milton, Ulster county, although the fruit is largely cultivated in this county.

There are now about 100 acres of raspberries in bearing in the immediate vicinity of Milton, and immense quantities of plants are being set out every year.

A few days ago we visited the raspberry plantation of Nathaniel Hallock, at Milton, in order to learn the *modus operandi* of the culture. Mr. Hallock's being one of the principal plantations.

The pickers were in the fields with their baskets between eight and nine o'clock in the morning, as soon as the dew was off the plants, as the berries do not keep so well when picked wet.

In a short time the pickers began to bring in the baskets of berries. These baskets hold about a pint, and are very neat looking, being made of willow, and much superior to the baskets in which strawberries are sold, in fact the berries would hardly sell, if sent to New York in strawberry baskets.

There were about fifty pickers at work, men, women and children, the women being the most expert pickers of course. One person was employed constantly, and a part of the time several persons, in packing the baskets. The baskets, as soon as picked and examined, are packed into boxes of different sizes, according to the crop of that day. The object of putting them into boxes is to ensure their safe transit to the market, and in order to do this, the packer has to work carefully to fit the baskets in so that each one braces the other; when the boxes

are filled to the top, the lid is closed and locked, and the boxes are ready for shipment.

The season lasts about six weeks, and this period is one continual round of business, the berries being sent off to New York every night except Saturday, (there being no sale for them on Sunday.)

The berries were all picked about six o'clock, and after supper they were conveyed to the landing, the baskets making two very heavy horse loads, and as near as we could calculate, the steamboat took off about 60,000 baskets, that night, making about 20 tons of berries, exclusive of the weight of boxes and baskets.

The baskets are imported from France by hundreds of thousands every year, and although such quantities are manufactured every year, the supply is inadequate to the demand, the latter exceeding the former by about one-half.

The culture of the plants requires the services of a large number of people.

The pickers constitute a small army, there being from five to ten, and often more required for each acre, according to the time in the season, which was at its height this year about the second week in July.

The manufacture of the boxes in which the baskets of berries are packed is no small item, and the steamboats that carry this extra freight are obliged to employ extra men to handle it.

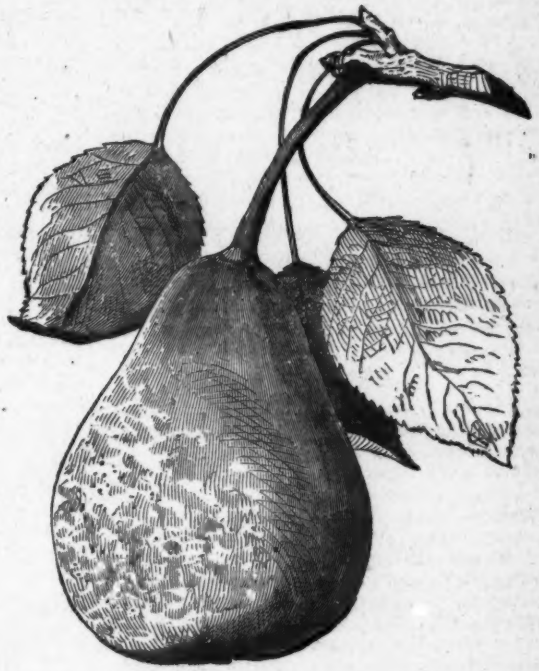
This business, though at first view it seems small, gives employment to, and distributes its gains among thousands of persons.

From the Milton landing, the average daily export is 10,000 baskets, and the retail price in New York averages about ten cents per basket; thus the product of 100 acres amounts to $1,000 per day, or $42,000 per season. We call to mind no other crop which produces as much per acre, or which gives employment to so many.

BULBOUS ROOTS.—The *Magazine of Horticulture* says, what is in com mon language termed a bulbous root is by Linnæus termed the Hybernacle, or Winter Lodge of the young plant. These bulbs, in every respect, resemble buds, except in being produced under ground, and include the leaves and flower in miniature, which are to be expanded in the ensuing spring. By cautiously cutting, in the early spring, through the concentric coats of a tulip root, longitudinally from the top to the base, and taking them off successively, the whole flower of the next summer's tulip is beautifully seen by the naked eye, with its petals, pistil and stamens; the flowers exist in other bulbs, in the same manner, but the individual flowers of others being less, they are not so easily dissected, or so conspicuous to the naked eye. In the buds of the Daphne Mezeron, and in those of the Hepatica, and at the base of the Osmunda lunaria, a perfect plant of the future year may be found, complete in all its parts.

THE ROSTIEZER PEAR.

We are happy to acknowledge our obligations to JAMES HYDE & SON, of Newton Centre, for the fruit from which our engraving was sketched.—When Downing wrote of it in 1845, it had not been sufficiently proved to enable him to speak confidently of its merits; but we believe the Messrs. HYDE, and other cultivators, have found it to be an excellent variety. It is a German pear, and was received from the nursery of the brothers Baumann, of Balwiller, on the Rhine.



It bears abundantly. Fruit of medium size, oblong-pyriform. Skin a dull yellowish green, with a reddish-brown cheek, and whitish dots, light russet. Stalk very long, nearly two inches, irregular, slender, set with very little depression. Calyx open, but little sunk. Flesh juicy, a little coarse, but very melting, sweet and delicious, with a rich perfume. August and September.

AGRICULTURE THE PROPER CALLING.

A most sensible writer in the *Country Gentleman* says:

All other pursuits are proper in there places, but when carried to too great an extent, produce poverty, distress, and misery. The more agriculture is pursued, the greater is the benefit to the human race. Here is a field for the philanthropist. Establish agriculture upon a good basis—the basis of intelligence—and you will do much to close what are now flood-gates of misery to society. Our city poor, our merchant clerks, our emigrant-poor, and our country poor, all call for relief; and here alone

can it be obtained,—in intelligent husbandry. Agriculture is the great moving power of human existence, and as the human family increases we must but cling the closer to our mother earth for support. Thus the mandate, "to earn our bread by the sweat of our brow," becomes from our condition a matter of necessity; but in it we see the goodness and wisdom of our great law-giver, for "necessity is the mother of contrivance," we thus increase in intelligence, and intelligence promotes morality and happiness. In the dim but yet brightening future, we behold instead of cities over-crowded with human life and ragged pauperism stalking abroad, the whole face of nature one great Eden,—the sons of Adam all inheriting his estate. Agriculture exerts an influence to equalize the distribution of wealth, which no law nor theory, nor any other pursuit, has or ever can accomplish.

THIRD EXHIBITION OF THE U. S. AGRICULTURAL SOCIETY.

The third annual Exhibition of the United States Agricultural Society opened in this city on Tuesday, Oct. 23d, and continued through the week. The number of entries was very large, all the arrangements made with admirable taste and judgment, and the grounds were thronged by thousands of admiring visitors.

GENERAL ARRANGEMENTS.

The Exhibition is held on a lot of about thirty acres, in the south part of the city, which is enclosed with a board fence ten feet high. The main entrance is on Harrison Avenue, opposite Franklin Square. As the visitor approaches the ground from Franklin Square, the first thing that attracts his attention is the beautiful arch which spans this entrance, and which is supported by two noble towers forty feet in height. Over these towers wave the "Stars and Stripes." The arch bears the simple inscription, "U. S. Agricultural Society." On either side of the entrance are the windows for the sale of tickets. There are twenty of these—so that no delay need be apprehended in procuring tickets. Further south there is another entrance, over which a plain arch has been erected. Visitors with tickets will be admitted here also. Midway between these entrances, and opposite the judges' stand, is a wide gate, which will be opened at the conclusion of each day's exhibition, to allow the multitude to retire from the grounds.

When within the enclosure the visitor will be pleased with the excellent arrangement of the grounds. On the right of the main entrance are seats for ten thousand people. These seats are erected in the most substantial manner, and are capable of supporting a much greater weight than it will be possible to put upon them. From these seats a fine view of the whole field can be obtained. On the left of the main entrance the stalls for horses commence, and they and the cattle stalls are continued round the entire enclosure, until they reach the southerly end of the seats on Harrison Avenue. There are between six and seven hundred of them. The stalls are all covered with white duck, and a scalloped fringe runs along the front. This covering and festooning gives to the stalls a very neat and pretty appearance. Each breed of horses and cattle is arranged in a distinct department, which is designated by a large sign raised over the stalls they occupy.

The ranges for the sheep and swine are erected on the north-east corner of the lot. They are substantial pens, with roofs to protect the animals from the weather.

For the purpose of showing the horses to the best advantage, a fine track, forty feet wide and half a mile in length, has been prepared. It is of an oval form, with no sharp corners, and is rolled perfectly smooth and hard.

The Judges' stand is a large octagon tower, seventy feet high, with a piazza running all round the same on the ground line, making this floor twenty feet square, and two feet up from the ground; this will be occupied by the representatives of the press. Twelve feet above, is another floor, with a balcony running round the same, four feet outside the floor, to be occupied by the Judges. Above this there is still another story, which will be occupied by ladies. The tower is arched on every side and story, and is handsomely ornamented with brackets, rustics, ballustrades, and with American flags, one of which surmounts it, and others are extended from the different stories.

Just south of the tower is a music stand, made in the Gothic style. This is occupied by an excellent band of music.

Four water temples of the same style of architecture as the tower, are erected at different points of the green inside the race-track. At these the multitude will be enabled to slake their thirst with the pure Cochituate.

On the green, within the elipse, are several tents. The one which is nearest the main entrance is the President's Reception Tent. Another tent is devoted to the reporters, and others are provided for the accommodation of ladies. Directly in the rear of these tents, and in the centre of the elipse, is "Wright's mammoth tent," beneath which the grand agricultural banquet is to be held on Friday afternoon. It is floored, and will be lighted with gas. The tables will be spread for two thousand guests, and there is no doubt that every plate will be occupied. Among the eloquent men announced to be present are Messrs. Everett, Choate and Winthrop of our own State, and others from all parts of the Union. With favorable weather, this banquet will be a magnificent affair.

Across the track, and between that and the cattle pens, is another large tent, beneath which Mr. Wright has provided tables and the other necessary paraphernalia for feeding the multitudes from day to day.

On the easterly side of the enclosure, outside of the range of stalls, is a large wooden building, in which is the Executive Committee's room, which is furnished with sofas, lounges, &c. In the rear of this, is a large room in which are tables for each of the several committees to award premiums. In the centre are tables sufficiently large to dine three hundred persons at a time. Precisely at one o'clock each day, dinner will be on the table—and the officers of the society, their invited guests, including the representatives of the Press on the gronud, will dine there. Mr. Wilder, the President of the Society, will officiate at the head of the table each day.

OPENING OF THE EXHIBITION.

The weather was fine on Tuesday, and at an early hour, the visitors poured into the vast enclo-

sure, and the scene upon the outside and in the streets leading to it exhibited an unusual amount of activity. The arrangement of the various tents, the trotting course, accommodations for the public, and for the large number of animals which were entered, presented a fine appearance.

Gen. Tyler, the chief marshal, and a host of assistants, appeared on the ground at an early hour, dressed in a neat gray uniform, with a style of hat of a comfortable character, got up for the occasion. A large police force was also present, and it is highly creditable to the crowd who were present, to say, that their behavior was such as to require no coercive measures to keep them in good order.

At ten o'clock the bugle sounded the call for the cavalcade, when Mr. Wilder, the president of the society, announced the exhibition open, to continue during the week. The cavalcade was headed by the chief marshal, and formed an exhibition which no one should fail to witness at some time before the close of this anniversary gathering. The cavalcade consisted of eighteen or twenty pairs of elegantly matched and beautiful horses, singly, in gigs and other carriages, and about eighty which were ridden or led, including some ten or fifteeen colts.

EXHIBITION OF STALLIONS AND MARES.

At 11 o'clock a call was made for the stallions, mares, &c., (roadsters,) for exhibition and trial of speed. These were driven round the track twice, the first time slowly, and the second time at full speed. Those who took part in it were—North Horse, owned by Mr. North; Morgan Empire, James H. Chamberlain; Boston Boy, Adams Carpenter; Ethan Allen, O. S. Rowe; Black Hawk, J. E. Wayne; Stokbridge Morgan, John Bullard; Brom Horse, Charles Boylsten; Black Hawk Chief, Edgar Hill; Morgan Hunter. The quickest time made was 1.24, (distance one-half mile,) this was made by Black Hawk Chief. Others made the half mile in 1.25, 1.34 and 1.36.

The next exhibition upon the track was of breeding mares, many of them with colts. Of these there were some twenty-five or thirty. Among those that attracted attention were the Mary Morgan, of Limerick, Me., 9 years old, and the Jenny Lind, 9 years old, of Vergennes, Vt., the last of the Black Hawk breed. There were also many others which made a fine appearance, and some of an ordinary character.

THE SOCIETY'S DINNER.

At precisely one o'clock a procession was formed at the President's tent, consisting of the officers of the Society and invited guests, and proceeded to the committee rooms, where an excellent and substantial dinner was in waiting, provided by Mr. John Wright, caterer for the Society. This dinner is a most excellent feature of the Society's arrangements—one peculiar to its itself, and one which evinces the liberality of its managers. Between two and three hundred gentlemen availed themselves of the Society's hospitality. The dining hall was ornamented with several beautiful paintings of cattle, landscape views, &c. After the dinner the list of committees was called, and as far as possible the vacancies were filled.

EXHIBITION OF PONIES.

The first exhibition after dinner was that of Ponies. A dozen or fifteen animals appeared under this head before the Judges—one half of which at least we should class as good sized horses. It may be a difficult point to decide just where the dividing line between a pony and a small horse lies—but in regard to one half of those on the track this afternoon the committee can certainly have no hesitation. There was one, a little black fellow about as large as a good sized New Foundland dog, which seemed to be the favorite of the spectators. The company cheered him loudly, and in acknowledging the compliment he put his heels higher than his head and landed his rider, a lad, flat on the track, while he himself retired into the green. He was caught and again mounted, but he was determined not to be ridden, and after dismounting his rider again he was lead off the track. A pair of beautiful bay ponies, attached to a light wagon, were driven by a young gentleman *two and a half years old*, a son of GENERY TWITCHELL, Esq., the accomplished Superintendent of the Boston and Worcester Railroad. The young gentleman reined his steeds finely and semed to enjoy the sport very much.

TRIAL OF SPEED.

The exhibition closed with a trial of speed, open to all horses that have never trotted for money; exhibitors to drive, and to be persons who have never driven for money. Mile heats in harness, best three in five. The Judges were David Leavitt, of New York, Paran Stevens, of Boston, Lewis B. Brown, of New York, Anson Livingston, of New York, H. K. Libby, of Bangor. First premium, $200; second premium, $100.

Nineteen horses were brought upon the track, but upon its appearing that they were to start in classes of four each, immediately following each other, the parties drawing for a choice, one of the horses was withdrawn. It was stated in the outset that no horse would be allowed to compete for a premium, who had been trotted for money. The quickest time around the track twice, was made by the horse John Smith, owned by John C. Smith, of New Bedford. This mode of trial not proving satisfactory, the next heats, which were for the best two out of three, were carried out by each class trotting separately. The result of this, narrowed the contest down to the Vermont Boy, belonging to Mr. Gilman, and the Lexington, owned by David Benjamin. The time of the Vermont Boy was 2.40 and 2.36, but on account of some question relative to trotting heretofore on a wager, a decision upon the question of the claim was postponed until an investigation took place.

A GLANCE AT THE STALLS AND PENS.

Among the choice horses it may be naturally supposed that there are many of the Morgan and Black Hawk breeds. The Morgan Hunter, 5 years old, belonging to S. D. Barlow, Brandon, Vt., and the Morgan Empire, 11 years, George W. Chamberlain, Waltham, each weigh 1100 pounds; Norman, 12 years, F. Whittaker, South Malden, 1180 pounds; Morrill, Bulrush, Morgan and Messenger, 11 years, F. Merrill, Durville, Vt., 1200 pounds. Chester Lyon, by C. Lyon, imported, owned by William Ellis, Middlebury, Vt. 1400 pounds. A pair of matched horses, belonging to Dr. O. S. Saunders, Boston, weigh 2100 pounds; a pair owned by Edward Seavey, Boston, 2268, and a pair by N. E. Nims, 2400.

Russell, Harrington & Co. have a pair of grey draft horses weighing 2740, and a pair of white

horses weighing about 2600. These are among the heavy horses. To mention all which are noticeable would require far more space than we have to use at this time.

The cattle on exhibition occupy a large space in the enclosure, and comprise choice specimens of Durham, Devon, Hereford, Jersey, Ayrshire and native breeds. It would be difficult among so many fine animals to single out any without doing injustice to others.

Romeo, a fine-looking animal, belonging to Mr. Morris, of Westchester Co., N. Y., a Durham, weighs 2025 pounds. Kirkleavington, 2¾ years, belonging to Paoli Lothrop, South Hadley Falls, weighs 2190.

N. G. Giddings, Exeter, N. H., exhibits a yoke of working oxen, native breed, weighing 4200 lbs. A pair of two year old Durham steers, D. W. Haynes, Readfield Me., weigh 3000. Leavitt & Hunt, Wolfboro', N. H., exhibit a pair of fat native cattle weighing 5000; W. S. Grant, Farmingdale, a seven year old ox weighing 2200, and James Eddy, Swanzey Mass., a five year old weighing 2760 pounds.

J. M. Drinkwater, of Cumberland, Me., has a beautiful grade oxen, six years old, weighing 4200 lbs. A. G. Cole, Buckfield, Me., exhibits an excellent pair of Curham steers, three years old, weight 3150 lbs.; also a large pair of Durham oxen, six years old, weight 4000. B. V. French, Braintree, and Hon. Josiah Quincy, Sen. have some excellent oxen on the ground.

The sheep and swine also make a good appearance. Of the first-named there are the native Saxon, Silesian, Spanish and French Merinos, South Down and middle wooled, and of swine, some very fine specimens of the Suffolk, Essex and Berkshire breeds.

SECOND DAY—WEDNESDAY.

The elements appeared to have entered into a combination to see how uncomfortable and dreary a time they could make for the second day of the great exhibition. The storm which commenced on Tuesday evening, continued almost uninterruptedly through the night, and through the entire day. The rain fell in torrents, and at times the wind blew quite a smart gale. Under these circumstances the entire programme for the day was postponed. During the day there were no visitors on the ground except exhibitors and gentlemen serving on committees—and they were clothed in big pea-jackets, stout boots and mittens. A few of the more adventurous committee men made their examinations; but the most of them postponed this duty until they could have more favorable weather. The owners of the animals on exhibition endeavored every way possible to shield their horses and cattle from the storm, but in spite of all their efforts, some of them had a most uncomfortable day. About noon many of the best horses were removed from the ground.

During the forenoon, the officers of the society and the committees met in the committee rooms, where the vacancies on the committees were filled.

At one o'clock, the officers and their guests with the committees dined together. After dinner, Mr. WILDER, the President, briefly expressed his regrets at the unpropitious state of the weather, which rendered it necessary to postpone the programme for the day. But he urged all to keep up good courage, and said he, we will come out right yet. We are here, and we mean to have a good time and fair weather before we go through. This announcement was received with much applause.

Bond's Cornet Band which was engaged for the day was on the ground, and took up their quarters beneath the Marshal's tent, where at intervals during the day they discoursed excellent music to a select audience.

THIRD DAY—THURSDAY.

The third day of the Exhibition opened with favorable prognostics. A keen wind which blew from the west, dispersed the rain-clouds that lowered so dismally yesterday, and soon rendered the exhibition grounds dry and comfortable.

As soon as the gates were opened, a continued stream of visitors began to pour into the enclosure, and from present appearances there will be a vast multitude in attendance upon the exhibition to-day. At an early hour the number of people on the ground was estimated at over 10,000

The programme assigned for the morning was deferred until after the entree of the grand Truckmen's Cavalcade. About 10 o'clock this noble array began to deploy upon the ground; and a most magnificent sight it was! Dressed in neat white frocks and dark pantaloons, and mounted upon generally large and fine horses, the manly, stalwart frames of the drivers showed to the best advantage. We never witnessed a finer body of workingmen, and the turnout fully maintained the ancient character of Boston truckmen. They mustered by actual count 617 strong, were marshaled in an efficient manner by Peter Dunbar, assisted by an active corps of assistants, and preceded by the Boston Brass Band. As they passed the circuit of the track, their unique uniforms blended grandly with the general appearance of the thousands of spectators lining the sides throughout its entire extent. After having twice accomplished the circuit they retired.

Judging from the crowds that are actually besieging the various entrances to the grounds, to-day's Exhibition must be pronounced most successful. At 12 o'clock, the ranges of seats provided by the Society, and capable of accommodating 6000 persons, were completely filled.

Around the large area of the race-track, the crowd was also immense. It is probable that more than 50,000 persons visited the exhibition this forenoon.

FOURTH DAY—FRIDAY.

The weather was fine, and the attendance, this day, very large. Early in the morning the track was taken possession of by those who desired to exhibit their horses, and a most animating spectacle ensued. At nine o'clock the working oxen were marshaled in line opposite their quarters, for the benefit of the Committee. This was a pleasing sight. Their stalwart forms, fair proportions and honest countenances, were fine to behold.

At 10 o'clock a grand cavalcade came off upon the course. This was a magnificent and imposing spectacle. First came the marshals, in their gray uniforms, then the brood mares and their colts, followed by the young stallions led by their grooms; next came horses of all work, harnessed to carriages of every description—gigs, sulkies, buggies and chaises; then followed the matched horses, forty-eight in number, with coaches and fine carriages in which were seated gentlemen and ladies; after

these came the trotters, followed by a splendid draft team consisting of four large and noble bay horses attached to a large wagon. The whole number of horses was one hundred and seventy-seven.

At eleven o'clock there was a drawing match by the working oxen in the east section of the field, which was witnessed by a large crowd. The oxen were attached to a cart loaded with 6100 lbs. weight, which they were required to draw forward several rods, and also to back it to its original position. It was done by some of them with great ease, by others indifferently, and by others not at all. The farmers especially took much interest in this part of the proceedings.

At 11 o'clock there was a grand trial of speed on the part of fancy matched horses. The trial was in pairs.

After this the celebrated Drum Corps from New York appeared upon the course in front of the Judges' stand; they number sixteen, under the head of a Major, who without a word of command, but with a slight motion of the hand or head, made his order manifest. It was surprising to see the training of the corps, so prompt and decisive; now they swell out a roll of thunder, then allowed it to die away into a delicate pianisimo. The audience were highly gratified at the performance.

At one o'clock a trial of draft horses was had on the ground east of the Pavilion. This was attractive, and afforded much gratification to those who could not, from the press of the crowd, obtain a good view of the trotting.

The great feature of the day, the BANQUET, took place at two o'clock, beneath John Wright's big tent, which was erected in the centre of the ellipse. The procession was formed at the President's tent a few moments before two, and marched to the big tent, passing as they entered beneath an arch inscribed "SUCCESS TO AGRICULTURE." The tables were spread for over two thousand people, and nearly every plate was occupied. A blessing was asked by Rev. S. K. Lathrop, D. D., and after the feast, thanks were returned by Rev. E. N. Kirk, D. D. President Wilder presided, with his accustomed urbanity, and announced the regular sentiments, which were eloquently responded to by the following gentlemen:—Gov. Gardner, Mayor Smith Gov. Hoppin, of R. I., Daniel Landreth and Morton McMichael, of Philadelphia, John C. Gray, R. C. Winthrop, Edward Everett, Col. Thompson, of Canada West, and J. A. King, of New York. The premiums were then announced, by W. S. King, Secretary of the Society.

FIFTH DAY—SATURDAY.

The fair weather of Saturday brought a large crowd of people to witness the closing performances, the great attraction of which was the trotting matches, particularly that for the prize of three hundred dollars. Four horses started for the race—Ethan Allen, Stockbrige Chief, North and Columbus. The Chief was soon distanced and withdrawn. Ethan Allen won the first heat in 2.34¼, the second in 2.35, and was awarded the prize. His driver was Mr. Daniel Mace, of Cambridge. The race was won with the greatest ease, and the beautiful horse showed that he possessed a reserved speed, had it been required, that would have taken considerable from even the quick time made. The second premium was awarded to Columbus. The next performance was a trot between stallions of five years old and under, and the premium was won by the horse Romeo in two heats, of 2.57 and 2.58, White Mountain Morgan coming in second, Morgan Hunter being distanced in the first heat. The White Mountain colt was much admired for his grace and activity.

At three o'clock, the call for a trial of speed free to all horses and drivers, was responded to but by the horses Chicago Jack and Lady Litchfield. They were to run for the best three in five for $300 for the first prize and $100 for the second. The first two heats were won by Chicago Jack in 2.36 and 2.33; the last two by the Lady Litchfield in 2.37 and 2.36. On the last heat she came in first, in 2.38, but lost the race by the decision of the judges, who counted a habit she had of breaking, against her. Other favorite matches were also run.

Albert Golder, of Watertown, Me., a lad of twelve years, rode around the course on horseback, and won much applause by his admirable horsemanship. He made the time in 2.50. Other trots of interest also took place.

Owing to the great attraction on the track, but few persons attended the auction sale of stock by Mr. Hatch. He sold some $1100 worth, and then postponed the auction sale of horses to Monday.

The number in attendance during the several days of the exhibition could not have been less than from one hundred and fifty to one hundred and seventy-five thousand.

The receipts of the Society from all sources are from $32,000 to $35,000. This will undoubtedly pay all the premiums awarded by the committees, all the expenses, which must be very heavy, as every one will conceive who has seen the magnitude and beauty of the arrangements; and we hope will leave a good sum as the nucleus of a permanent fund for the promotion of the objects of the Society.

PREMIUMS.

CLASS NO. 1—CATTLE.

HERD PREMIUMS.

Durhams—1st premium, $100, to N. J. Becar, Smithtown, L. I.; 2d, diploma, Morris & Becar, Fordham, N. Y.; 3d, diploma, Paoli Lathrop, South Hadley, Mass.

Devons—1st premium, $100, C. L. Wainwright, N. Y., and $100 to L. G. Morris, Fordham, N. Y.; 2d, diploma, William Buckminster, Mass.

Ayrshire—1st premium, $100, Hungerford, Brodie & Converse, N. Y.

Herefords—1st premium, $100, Wm. H. Sotham, Owego, N. Y.

Jerseys—1st premium, Samuel Henshaw, Brookline, Mass.; 2d, $50, Thos. Motley, Jr., W. Roxbury.

Grades—1st premium, $100, Samuel Ellsworth, Barre, Mass.

Natives—1st premium, $100, A. G. Sheldon, Wilmington, Mass.

NO. 2—DURHAM BULLS.

Bulls three years old and upwards—1st premium, $100, "Romeo," Morris & Becar, Fordham, N. Y.; 2d, $50, "Kirk Livingston," Paoli Lathrop, South Hadley, Mass.. 3d, diploma, "Duke," Calvin Sanford, Barre, Mass.

Bulls two years old—1st premium, $50, "Tallyho" N. J. Becar, Smithtown, L. I.; 2d, $25, "Sir Robert Peel," B. DeWolf, Bristol, R. I.

Bulls one year old—1st premium, $25, "Warwick," Samuel T. Tabor, Duchess County, N. Y.; 2d, $10, "Farnley," Simeon Leland, New Rochelle, N. Y.; 3d, diploma, "Echo of Oxford," N. J. Becar, Smithtown, L. I.

Durham Cows and Heifers—Cows three years old and upwards—1st premium, $100, to "Iris," Morris & Becar, Fordham, N. Y.; 2d premium, $50, "Bloom," L. G. Morris, Fordham, N. Y.; 3d, diploma, "Maid of Oxford," N. J. Becar, Smithtown, L. I.

Heifers, two years old and under three years—1st premium, $50, "Miss Belleville," N. J. Becar, Smithtown, L. I.; 2d premium, $25, "Minerva 4," Morris & Becar, Fordham, N. Y.; 3d, diploma, "Victoria 26," to the same.

Discretionary Premiums—P. Lathrop and G. M. Atwater, South Hadley, Mass.

Heifers, one year old and under—1st premium, $25, "Surprise," Morris & Bean, Fordham, N. Y.; 2d premium, $10,

should have been awarded to "Victorine," owned by the same parties, but there being no competition, this could not be done.

The committee would also speak in the highest terms of a very superior heifer calf "Grace," owned by Morris & Bean, of Fordham, N. Y., but the premium list offered no premium on calves.

No. 3—DEVON BULLS.

Bulls three years old and upwards—1st premium, $100, "Winchester," J. W. DeForest, Dover, N. Y.; 2d, diploma, "Frank Quartly," L. G. Morris, Fordham, N. Y.

Bulls two years old and under three years—1st premium, $50, "Blucher," W. R. Sanford, Orwell Vt; 2d premium, $25, Harvey Dodge, Sutton, Mass.; 3d, diploma, B. V. French, Braintree, Mass.

Bulls one year old and under two years—1st premium, $25, "Tecumseh," E. G. Faile, West Farms, N. Y.; 2d, $10, Wm. Buckminster, Framingham, Mass.; 3d, diploma, W. R. Sanford, Orwell, Vt.

DEVON COWS AND HEIFERS.

Three years old and upward—1st premium, $100, E. G. Faile, West Farms, N. Y.; 2d, diploma, L. G. Morris, Fordham, N. Y.; 3d, diploma, C. S. Wainwright, Rhinebeck, N. Y.; discretionary diplomas, L. G. Morris, Fordham, N. Y., and C. S. Wainwright, Rhinebeck, N. Y.

Two years old under three years—1st premium, $50, E. G. Faile, West Farms, N. Y.; 2d, diploma, $25, C. S. Wainwright, Rhinebeck, N.Y.; 3d, diploma, W. R. Sanford, Orwell, Vt.; discretionary diplomas, John C. Morse, Francistown, N. H., and Joseph Burnett, Southboro', Mass.

One year old and under two years—1st premium, $25, E. G. Faile, West Farms, N. Y; 2d premium, $10, C. S. Wainwright, Rhinebeck, N. Y.; discretionary diplomas, two to B. V. French, Braintree, Mass., and one to John G. Morse, Francistown, N. H.

Calves—Discretionary premium, $25, J. T. Andrew, West Cornwall, Ct.

No. 4—AYRSHIRE BULLS.

Bulls three years old and upwards—1st premium, $100 to "Kelburn," owned by Hungerford, Brodie & Converse, Ellisburg, N. Y.; 2d, $50, "Major," owned by G. W. Barrett.

Bulls two years old—None presented worthy of a premium, although three were exhibited to the Committee, and the same may be said of the yearling bulls of this class.

AYRSHIRE COWS AND HEIFERS.

Cows three years old and upwards—1st premium, $100, "Mary Grey," Hungerford, Brodie & Converse, Ellisburg, N. Y.; 2d premium, $50, "Jessie" Robbins Battell, Norfolk, Ct.; 3d, diploma, "Alice," John Brooks, Princeton, Mass.

Heifers two years old—1st premium, $50, "Lady Ayr," Hungerford, Brodie & Converse, Ellisburg, N. Y.; 2d premium, $25, "Jessie 2d," R. Battell, Norfolk, Ct.; 3d, diploma, "Lady Gowan," Hungerford, Brodie & Converse, Ellisburg, N. Y.

Heifers one year old—Messrs. Hungerford, Brodie & Converse, of Ellisburg, N. Y., exhibited two very fine animals under this head, but the Committee under the rules of the Society, there being no competition, awarded the first premium only $25 to "Bessie," the youngest of the two.

No. 5.—HEREFORD BULLS.

Bulls three years old and upwards—1st premium, $100, Daniel Goodell, Brattleboro', Vt.; 2d, William H. Sotham, Owego, N. Y.

HEREFORD COWS AND HEIFERS.

Three years old—1st premium, $100, "Milton," State Farm, Westboro', Mass.; 2d, $50, "Milton" William H. Sotham, Owego, N. Y.; 3d, diploma, C. B. Clarke, Concord, Mass.

Two years old—1st premium, C. B. Clarke, $50, Concord, Mass.; 2d premium, $25, Wm. H. Sotham, Owego, N. Y.

One year old—1st premium, $25, Wm. H. Sotham, Owego, N. Y.

No. 6—JERSEY BULLS.

Bulls three years old and over—1st premium, $100, Thos. Motley, Jr., of Mass.

Bulls two years old—1st premium, $50, Joseph Burnett, Southboro', Mass.; 2d, $25, R. S. Rogers, Salem, Mass.

Bulls one year old—1st premium, $25, John Washburn, Swampscot, Mass.; 2d, $10, to Thomas Motley, Jr., Mass.; 3d, diploma, W. A. Harris, Mass.

JERSEY COWS AND HEIFERS.

Cows three years old and upwards—1st premium, $100, "Rose," G. H. French, Andover Mass.; 2d, $50, "Daphne," S. Henshaw, Brookline, Mass.; 3d, diploma, "Flirt," Thomas Motley, West Roxbury, Mass.

Heifers two years old—1st premium $50, "Duchess," S. R. Spalding; 2d, $25, "Topsy," G. H. French, Andover, Mass.; 3d, diploma, "Rosa," R. P. Waters, Beverly, Mass.

Heifers one year old—1st premium, C. L. Cunningham, Milton, Mass.; 2d, "Bess," O. H. French, Andover Mass.; 3d, "Buttercup," W. B. Bacon, Jamaica, Plain, Mass.

No. 7—GRADE COWS.

Cows three years old and upwards—1st premium, $100, "Beauty," Geo. M. Barrett, Concord, Mass.; 2d, $50, "Genuine," Samuel Ellsworth, Barre Mass.; 3d, diploma, B. V. French, Braintree, Mass. Discretionary premium, $10, E. Sheldon, Cayuga County, N. Y.

Cows two years old and under three years—1st premium, $50, A. D. Weld, Roxbury, Mass.; 2d, $25, J. W. Hollis, Brighton, Mass.; 3d, diploma, Wm. Spencer, Lowell, Mass.

Cows one year old and under two years—1st premium, $25, W. H. Watson, Princeton, Mass.; 2d, $10, C. H. Keith, Malden, Mass.; 3d, diploma, Henry Sheldon, Cayuga County, N. Y.

The committee recommend a gratuity of $50 to Samuel Jaques, of Somerville, Mass., for his cow and calf, but, on account of considering the cow pure blood rather than grade, they were unable to include it in the latter class, and award it a premium as such.

NATIVE COWS AND HEIFERS.

Cows three years old and upwards—1st premium, $100, to Davis & Flint, Boston; 2d, $50, Daniel Higgins, of Malden; 3d, diploma, J. L. Barrett, Bridgewater.

Heifers two years old—1st premium, $50, A. & T. Jerome, of Bloomfield, Ct.; 2d, Henry D. Pierce, Hillsboro', N. H.; 3d, diploma, Obadiah Howland, Auburn, N. Y.

Under two years old—1st premium, $25, A. W. Copeland, Dorchester.

No. 9—MILCH COWS

Cows five years old and upwards—1st premium, $100, W. W. Watson, Princeton, Mass.; 2d, $75, "Nonesuch," Davis & Flint, Boston; 3d, $50, A. M. Carleton, Chicopee, Mass.; 4th, "Fanny," C. M. Hovey, Cambridge, Mass.

Cows three years old and under five years—1st premium, $75, "Fanny," Wm. Eames, Worcester, Mass.; 2d, $50, "Dinah," Asa G. Sheldon, Wilmington; 3d, $25, "Nonesuch," Asa G. Sheldon, Wilmington; 4th, $15, O. Howland, Auburn, N. Y.

No. 10—WORKING OXEN.

1st premium, $100, J. M. Drinkwater, Cumberland, Me.; 2d, $50, Nathaniel G. Giddings, Exeter, N. H.; 3d, $25, Oliver Newman, Carthage, Me.; Discretionary premium, $5, E. Johnson, Auburn, N. Y.

The committee recommend the following:

Gratuities—$20, Simon Carpenter, Charlton; $15, Stephen A. Coburn, Lowell; $15, H. Sheldon, Cayuga, county, N. Y.; $10, C. H. & C. A. Smith, Vergennes, Vt.; $10, G. H. Shaw, Brookline; $10, Addison G. Cole, Buckfield; $5, John B. Newcombe, Norton; and diplomas to Nathan B. Reade, of Princeton, for best trained on exhibition; Hon. Josiah Quincy, for fine Devons; Hon. B. V. French, of Braintree, Wm. F. Wheeler, of Grafton, Harvey Dodge, of Sutton, William Buckminster, of Framingham, J. B. Moore, of Concord, Jas. Lawrence, of Groton; George Harvey, of Marlboro', G. K. Wright, of Keene. N. H., J. C. Sanborn, of Westboro', Moses D. Richardson, of Leominster, Larned Swallow, of Buckfield; J. D. G. Williams, of Raynham.

No. 11—STEERS.

1st premium, $50, D. W. Haynes, Readfield, Me.; 2d, $25, A. M. Winslow, Putney, Vt.; 2d, $15, A. G. Cole, Readfield, Me.; Discretionary, $10, Elon Sheldon, Cayuga Co., N. Y.

No. 12—FAT CATTLE.

On Bullocks—1st premium, $75, to Seth Bush, Westfield, Mass.; 2d, $50, James Eddy, Swansey, Mass.; 3d, $25, Sam'l Stebbins, Conway, Mass.

Fat Cows—1st premium, $50, to E. Munson, Auburn, N. Y.; 2d, $25, E. Sheldon, Cayuga Co., N. Y.

Fat Steers—Discretionary—1st premium, $50, to E. Munson, Auburn, N. Y.; 2d, $25, E. Sheldon, Cayuga Co., N. Y.; 3d, H. Sheldon, Cayuga Co., N. Y.

CLASS II—HORSES.

No. 13—THOROUGH BRED HORSES AND MARES.

Stallions—1st premium, $200, "Trustee," M. De Motte, New York; 2d, $100, "Logan," J. B. Monott, New York; 3d, $50, "Matchless," Wm. B. DeWolf, Bristol, R. I.; 4th, diploma, "Tricolor," Frederick Boyden. Topsfield.

Mares—1st premium, $150, "Fashion," L. G. & F. Morris, Fordham, N. Y.; discretionary premium, "Etiquette," L. G. & F. Morris, Fordham, N. Y.; do., "A La Mode," L. G. & F. Morris, Fordham, N. Y.

No. 14—STALLIONS AND MARES (ROADSTERS.)

Stallions—1st premium, $200, "Ethan Allen," O. S. Roe & & Co., Cambridge, Mass.; 2d, $100, "North Horse," Lemuel North; 3d, diploma, "Boston Boy," A. Carpenter, Providence, R. I.

Mares—1st premium, $150, "Pet," W. P. Balch, Boston, Mass.; 2d, $100, "Lady Johnson," S. K. Johnson, North Andover.

No. 15—STALLIONS OF GENERAL USE.

Four years old and upwards—1st premium, $200, "Young Morrell," Town & Troy, Barre, Vt.; 2d, $100, "Henry Clay," Rogers & Callender, Albany, N. Y.; 3d, $50, "Morgan Emperor," Harrison Bacon, Barre; 4th, $30, "Ashuelot Morgan," U. Bowen, Richmond, N. H.

The committee also recommended gratuities of $20 each to the following horses:—"North Star," Henry Olmstead, E. Hartford, Ct.; "Young Trustee," C. D. Freeland, Patterson, N. J.; "Stockbridge Chief," J. W. Bishop, Chatham 4 Corners, N. Y.; "Old Sherman Morgan," A. J. Congdon, Lancaster, N. H.; "Granite State Morgan," C. C. Whittaker, Farmington, N. H.; "State of Maine," J. Moody, Linconville, Me.; "Cornet," Iram Wood, Hancock, N. H.; R. Kelram, South Boston; "Wild Deer," Dean & Merrill, Fabins, N. Y.; F. Whitaker, South Malden.

No. 16—Stallions for General Use.

Three years old and under four years—1st premium, $150, "Nonpareil," Jas. F. Thorndike, New England Village; 2d, $75, "Iron Duke," Timothy F. Jackson, Jamaica, L. I. The committee not being able to discern any appreciable difference between the horses, "White Mountain," belonging to S. H. Edgerly, of Manchester, N. H., and "Andrew Jackson," belonging to Harrison Bacon, of Barre, Mass., recommend that a premium of $50 should be given to each.

[The chairman of the committee, in a note appended to his report, states that in a subsequent examination he found that "Iron Duke" was unsound, and therefore he recommends that "White Mountain" receive the second premium. The Executive Committee will decide the matter.]

No. 17—Stallions.

Two years old and under three years—First premium $50, "Leather Stocking," S. & D. Leavitt, Jr., Great Barrington, Mass.; 2d, $25, "Silver Cloud," T. T. Jackson, Jamaica, Long Island; 3d, $15, R. S. Denny, Clappville, Mass.; 4th, diploma James F. Thorndike, New England Village, Mass.

One year old and under two years—First premium, $30, "Flying Scud," F. W. Mott, Manhassett, L. I.; 2d, $20, "King Philip," J. B. DeWolf, Bristol, L. I.; 3d, diploma, "Young Trustee," D. H. Shaw, Patterson, N. J.

Breeding Mares and Fillies.

Mares three years old—1st premium, $150, "Jenny Lind," C. W. Sherman, Vergennes, Vt.; 2d, $100, "Lady Sutton," G., H. Shaw, Brookline, Mass.; 3d, 50, "Massachusetts Maid," R. S. Denny, Clappville; 4th, diploma, "Sally Jenkins," Harrison Bacon, Barre.

Fillies three years old—1st premium, $75, "Fanny Kemble," Thomas Goddard, Boston.

Fillies one year old—1st premium, $30, "Wild Maggie," E. S. Stowell, Cornwall, Vt.

The committee recommend the sum of $140 set apart for Fillies but not used in that department, with such additional sums as may be deemed proper, should be appropriated in suitable testimonials of merit to the following parties, the examination of whose superior mares has been a source of much gratification to your committee:

"Kate," belonging to Arthur W. Austin, West Roxbury; "Kate Hayes," Samuel Wheat, Putney, Vt.; "May Flower," John Dugan, Somerville; "Fanny Morgan," Henry Olmstead, East Hartford, Ct.; "Julia," J. F. DeWolf, Bristol, R. I.; "Leaping Fawn," S. W. Ellis, Providence, R. I.

No. 19—Matched Horses.

First premium, $100, David Saunderson, Somerville, Mass.; 2d, $75, Joseph Wright, Waterloo, N. Y.; 3d, $50, H. M. Pettigrew; 4th, $25, Horace Sarget, Springfield, Mass.

The committee would also recommend the following gratuities: J. Randall, Boston, Mass., $20; D. Leavitt, Great Barrington, Mass., $15; J. G. Bates, Boston, $10; diploma, each to Geo. P. Reed, Roxbury, N. E. Nimms, Boston, Samuel Twitchel, Jr., Buffalo, N. Y.

No. 20—Fancy Matched Horses.

First premium, $75, J. L. Mitchell, of Albany.

No. 20½—Ponies.

Matched ponies—The committee considering none of the entries under this class to be true ponies, awarded the first premium of $25 to a pair of pretty little horses or Canadian ponies owned by F. Lyon, Niagara Falls.

Single ponies—1st premium, $20, Frank Dale, Boston, Mass.

Discretionary premium—To a Grade Pony or small Horse, owned by J. Willie Boyd, of Boston, $10.

No. 21—Family Horses.

1st premium, $100, to the horse "Clifford," five years old, owned by Mr. E. Boynton, Lexington; 3d, $50, to "Frank Pierce," owned by G. N. Holmes, of North Bridgewater; 4th, $25, to the horse "Black Harriet," owned by W. K. Rhodes, of Providence, R. I.

The committee recommend to the four following horses the sum of $20 each:—"Lady Kate," owned by J. S. Williamson, of Dover Hill, N. J.; "Messenger," owned by Stephen White, of North Cambridge; "Morgan and Messenger," owned by M. C. Kenny, of Cambridge; "Bruno," owned by T. H. Leavitt, of Boston. Also to the four following gentlemen the sum of $10 each: G. H. Abrams, Chelsea, Mass.; R. M. Abbe, of Enfield, Ct.; B. M. Hunt, of Readfield, Me.; R. Shurtleff, of Bellows Falls, Vt.

No. 22—Draft Horses.

1st premium, $100, Russell, Harrington & Co., Boston, Mass.; 2d, $50, East Boston Sugar Refinery; 3d, $25, Page & Noyes, Boston, Mass.

Single Draft Horses—1st premium, $50, Robert Cowdin, Boston; 2d, $25, Caleb Thurston, Boston; 3d, diploma, Hubbard Pierce, Boston.

Discretionary premiums—To M. W. Goodell & Co., of Boston, $25; Edward Harris, of Morristown, N. J., $25.

No. 23—Trotting Horses on Tuesday.

1st premium, $200, "Vermont Boy," E. H. & F. Gilman, Montpelier, Vt.; 2d, $100, "Ripton," Mr. Barnard, Boston.

In regard to the "John Smith" horse and the "Benjamin" horse, the committee were satisfied that these horses have trotted for money on a public track and for an advertised purse, the proofs of which will be laid before the Society if necessary.

Trotting Horses that have never Trotted for Money, on Thursday.

1st premium, $200, "Genesee," Anson Livingston, New York City; 2d, $100 "Kate Miller," Daniel Mace, Boston, Mass.

No. 24—Trotting Match on Saturday.

1st premium $300, to Chicago Jack, entered by John Daniels; 2d, $100, to Lady Litchfield, entered by Daniel Mace.

CLASS III—SHEEP.

No. 25—Long Wool Sheep.

Buck, two years old and over—1st premium, $25, Hungerford, Brome & Converse, Ellisburg, N. Y.; 2d, $15, to the same, 3d, diploma, J. T. Andrew, West Cornwall, Ct.

Bucks under two years old—1st premium, $20, D. B. Haight, Dover Plains, N. Y.; 2d, $10 to the same; 3d, diploma, to Geo. Fox, New Ipswich, N. H.

Ewes, under two years—1st premium, $20, Hungerford, Brodie & Converse, Ellisburg, N. Y.; discretionary premiums, $15, for three wethers, to John T. Andrew, W. Cornwall, Ct.; $8, or a diploma, at owner's option, for two year old buck, to D. B. Haight, Dover Plains, N. Y.; $5, or a diploma, at owner's option, for two year old buck, Albert Kelley, Auburn, Mass.

No. 26—Middle Wool Sheep.

Bucks, over two years—1st premium, $25, L. G. Morris, Fordham, N. Y.; 2d, $15, D. B. Haight, Dover Plains, N. Y.

Bucks, under two years—1st premium, $20, L. G. Morris, Fordham, N. Y.; 3d, $10, and a diploma, George Hartshorn, Rahway, N. J.

Ewes over two years—1st premium, $25, L. G. Morris, Fordham, N. Y.; 2d, $15, D. B. Haight, Dover Plains. N. Y.

Ewes under two years—1st premium. $20, L. G. Morris, Fordham, N. Y.; 3d, $10, D. B. Haight, Dover Plains, N. Y.

No. 27—Grade Sheep.

Gratuities—$15, for a pen of four bucks, Geo. Campbell, Westminster, Vt.; $15, for a pen of five ewes to the same.

No. 28—Silesian Merinos.

Bucks two years old and over—1st premium, $25, Chamberlain, Campbell & Ladd, Redbrook, N. Y.

Bucks under two years—1st premium, $20, to the same.

Ewes two years old and over—1st premium, $25, to the same.

Ewes under two years—1st premium, $20, to the same.

No. 29—French Merinos.

Ewes under two years—1st premium, $20, Chamberlain & Campbell, Redbrook, N. Y.; 2d, $10, Campbell & Chamberlain, Rutland, Vt.

No. 29—French Merinos.

The committee report that all the Sheep exhibited are owned by one person in part with different partners in each lot, and leave it to the Executive Committee to decide whether this disqualifies the Sheep from taking more than one premium, and that if the latter is the case, they would award them only the first premium.

If there was no partnership connection they would award the following premiums.

Bucks two years old and upwards—1st premium, $25, Chamberlain & Campbell, Redbrook, N. Y.; 2d, $15, Campbell & Chamberlain, Rutland, Vt.

Bucks under two years—1st premium, $30, Campbell & Chamberlain, Rutland, Vt.; 2d, $10, Chamberlain & Campbell, Redbrook, N. Y.

Ewes over two years—1st premium, $25, Campbell & Chamberlain, Rutland, Vt.; 2d, not awarded.

No. 30—Saxony Sheep.

Bucks two years old and upwards—1st premium, $25, Geo. Campbell, Westminster, Vt.; 2d, $15, W. R. Sanford, Orwell, Vt.

Bucks under two years—1st premium, $25, W. R. Sanford, Orwell, Vt.; 2d, $10, George Campbell, Westminster, Vt.

Ewes two years old and upwards—1st premium, $25, W. R. Sanford, Orwell, Vt.

Ewes under two years—1st premium, $20, W. R. Sanford Orwell, Vt.

No. 31—Suffolk Swine.

Boars two years old and upwards—1st premium, $25, I. & J. Stickney, Watertown, Mass.; 2d, $15, B. V. French, Braintree, Mass.; 3d, diploma, Lonsdale county, Smithfield, R. I.

Boars one year old and over—1st premium, $20, Joseph Kittredge, North Andover; 2d, $10, G. W. Wilson, Malden, Mass.; 3d, Diploma, Abner Haven, Framingham, Mass.

Sows two years old and over—1st premium, $25, I. & J. Stickney, Watertown, Mass.; 2d, $15, I. & J. Stickney, Watertown, Mass.; 3d, diploma, Joseph Kittredge, North Andover, Mass.

Sows one year old and under two years—1st premium, $20, I. & J. Stickney, Watertown, Mass.; 2d premium, $10, Abner Haven, Framingham, Mass.

Suffolk Pigs.

1st premium, $15, I. & J. Stickney, Watertown, Mass.; 2d premium, $10, Abner Haven, Framingham, Mass.

Discretionary premium, to G. W. Hildreth, of Greenfield-Mass., for litter of Pigs, $10; to James A. Stearns, of Manchester, N. H., for fine Boar, $10; to G. W. Hildreth, of Greenfield, Mass., for fine Boar, $10; to B. V. French, of Braintree, Mass., for fine Sow, $10.

No. 32—ESSEX BOARS.

Boars two years old and upwards—1st premium to L. G. Morris, New York, for Fisher Hobbs, $25; 2d, C. A. Stetson, New York, $15.

One year old and upwards—1st premium to L. G. Morris, New York, $20; 2d, C. B. Clark, Concord, Mass., $10; 3d, William A. Harris, Newton, diploma.

Sows, two years old and upwards—1st premium, to William A. Harris, Newton, Topsey, 3d, $25; 2d, L. G. Morris, New York, Aunt Cloe, $15; 3d, C. B. Clark. Concord, Mass., diploma.

One year old and upwards—1st premium to C. B. Clark, Concord, Mass., $20; 2d, L. G. Morris, New York, Topsey, 2d, $10; 3d, to L. G. Morris, diploma.

Essex Pigs—C. B. Clark, Concord, Mass., $15; also a diploma to the Sow Beauty, owned by George Bacon, of Brookline, Mass.

No. 33—BOARS OF OTHER BREEDS.

Two years old and upwards—The committee being unable to decide on the respective merits of the Berkshire and Yorkshire breeds, recommend a first premium on each breed, viz:

On Boars two years old and upwards—1st premium, $25, Yorkshire boar, Hungerford, Brodie & Converse, Ellisburg, N. Y.; 1st premium, $25, Berkshire Boar, L. G. Morris, Fordham, N. Y.; 2d, $15, Berkshire Boar, L. G. Morris, Fordham, N. Y.

Boars one year old—Only one entry was made under this class, and the committee therefore award the 2d premium, $10, Berkshire Boar, L. G. Morris, Fordham, N. Y.

No. 34—SOWS OF OTHER BREEDS.

Two years old and upwards—1st premium, $25, Joseph Tuttle, Dorchester, Mass.; 2d, $15, Charles R. Damon, Cochituate; discretionary premium, $10, J. A. Stearns, Manchester, N. H.

One year old and under two—1st premium, $20, Joseph Tuttle, Dorchester, Mass.; 2d, $10, L. G. Morris, Fordham, N. Y.

No. 35—PIGS OF OTHER BREEDS.

The committee would report that there were no pigs of other breeds presented to them which answered the condition which required not less than six in a litter, and therefore made no award.

In cases where no mention is made of second and third premiums, they were not awarded by the committee.

CURING BACON WITHOUT SMOKE.

"O, the trouble folks have taken,
To smoke and spoil their bacon."

To smoke the best bacon, fat your hogs early and fat them well. By fattening early you make a great saving in food, and well fattened pork. Then kill as early as the weather will allow, and salt as soon as the animal heat is gone, with a plenty of the purest salt, and about half an ounce of saltpetre to one hundred pounds of pork.

As soon as the meat is salted to your taste, which will generally be in about five weeks, take it out, and if any of it has been covered with brine, let it drain a little. Then take black pepper, finely ground, and dust on the hock end as much as will stick, then hang it up in a good, clean, dry, airy place. If all this is done as it should be, (it ought to be done now,) you will have no further trouble with it, for by fly time in spring, your bacon is so well cured on the outside, that flies or bugs will not disturb it.

Curing bacon is like the Irishman's mode of making punch. He said:—"put in the sugar, then fill it up with whiskey, and every drop of water you put in after that spoils the punch." Just so with curing bacon, after following the directions given above, every "drop" of smoke you put about it spoils the bacon.—*Portage Democrat.*

MIXED DIET.—All the Grahamite philosophy in the world cannot contradict, by reason, the assertion, that a mixture of animal and vegetable food is best for man. To supply the daily loss of nitrogen, a healthy, laboring man, if living on bread alone, would require four and a half pounds—if on potatoes, eighteen pounds. This would overload the stomach with starch. One and three-fourths pounds of bread, and three ounces of cheese, would produce the same amount of nitrogen, without overloading the stomach with carbon, and producing indigestion.

HAVE WE A BURNS AMONGST US?

The foregoing question was in our mind when we had finished reading the following beautiful lines sent to us by one, who says, in the letter accompanying them, that they were composed while he was "engaged in the very poetical work of potato-digging." Several of his productions have appeared in our columns, but we think no one so beautiful as this. Write on, Mr. Canning,—the name you bear has already taken a lofty place in the British annals of eloquence—you may cause it to take a like position in the American annals of poetry.

For the New England Farmer.

INDIAN SUMMER.

BY THE "PEASANT BARD."

Soft falls the hazy light upon
The hill-side, plain and vale;
The yellow leaves bestrew my path,
As down the stream they sail.
I note them halting by the brink,
And idling as they run,
Or dancing o'er the ripples bright
That glimmer in the sun.

On yonder woody bank I hear
A rustling 'mid the leaves;
Borne on the still and hollow air
The sound my ear deceives;
I deem the heavy-treading kine
Are coming down the brae,
When nothing but a squirrel light
Is skipping there away.

The hunter's distant gun I hear
The forest echoes wake;
'Tis pity that such sullen sounds
The holy calm should break!
I fancy how with dying throes
The harmless quarry bleeds:—
How man but little mercy shows,
Who so much mercy needs!

A solitary bee a-field
Allured by these bright hours,
Flits like a fay before my eyes;—
She'll find no honey-flowers,
For they have perished; one by one
I marked them fade from view,
And nothing but the blackened stalk
Appears where late they grew.

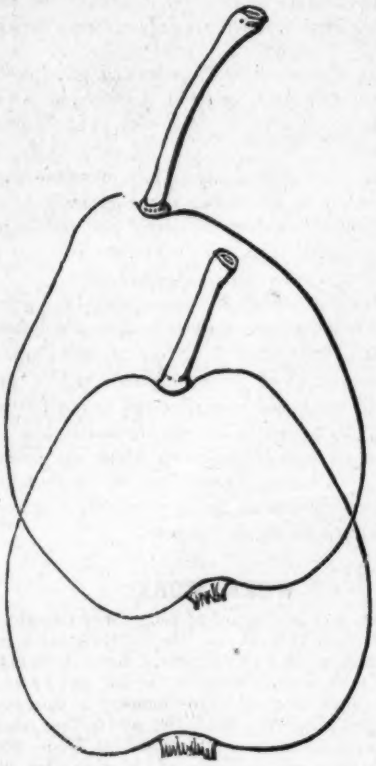
How kind, how pleasant is this sun,
When cold the winds have blown!
The winds that bear the early frosts
Down from the bleaker zone.
'Tis not the burning August sun,
Nor that of fierce July,
But soft effulgence lights the earth,
And glorifies the sky.

It is the Indian Summer time'
So full of placid joy;
The *dolce far niente* that
I dreamed of when a boy.
And it is like a blissful dream,
Like such it soon is past;
Too bright to linger with us long,
Too beautiful to last.

MADELEINE AND OSBAND PEARS.

The first of these outlines, the Madeleine, is a pear hardly of the medium size, but one of the most refreshing and excellent of the early pears, and Downing says the best at the time of its ripening, which is before the Bloodgood. It takes its name from its being in perfection, in France at the feast of St. Madeleine. The tree is fruitful and vigorous, with long erect olive-colored branches.

Elliott, in his fruit book, says, our Eastern pomologists class this pear as "best," but that the specimens he had tasted have not merited more than to be "very good." American. Native of Montgomery Co., Penn.



MADELEINE, *Citron des Carmes.* Rather small; long turbinate; greenish lemon yellow, seldom a brownish cheek; stem long, stout; calyx small, nearly even with the surface; flesh whitish, melting, juicy, of sweet delicate flavor. 25 July to August 10. Tree very vigorous and productive. The best very early pear, yet it is liable to blight in tree and very little in fruit. Does well both on the pear and quince. Ripen in the house. Foreign.

OSBAND'S SUMMER, *Summer Virgalieu.* Small medial; obovate; clear yellow, green dots, red cheek; stem an inch long, stout in a slight cavity; calyx large, basin shallow, flesh white, juicy, of a rich sugary, slightly musky flavor. 10 or 15 to 30 Aug. Popular in Western N. Y. Barry says, "Invariably first-rate." Productive. Does equally well on pear or quince. We find it a good grower. Origin near Palmyra, N. Y.

For the New England Farmer.

WILD RICE.

OR THE ZIZANA AQUATICA, OF PURSH.

BY S. P. FOWLER.

The natural productions of our country, unknown as they were to our early travellers and historians, seem to have especially attracted their notice, and they became very early acquainted with two of our staple productions—*viz*; Indian corn and tobacco. At a somewhat later period, there was another indigenous plant, whose discovery by our northern travellers was thought to be important, and the most sanguine expectations were entertained that it would soon take its place among the cultivated cereal grains, and become, as Pinkerton, when speaking of this interesting plant, says, the bread corn of the North. I here allude to the Wild Rice, sometimes called the Canada Rice, Water Oats, Indian Rice, and Minnesota Rice. I will here quote the relation of but one of many northern travellers, to show the high expectations raised by the discovery of this plant. In speaking of the Wild Rice as seen by him one hundred years since, he says,—"This grain, which grows in the greatest plenty throughout the interior parts of North America, is the most valuable of all the spontaneous productions of that country. In future periods it will be of great service to the infant colonies, as it will afford them a present support, until, in the course of cultivation, other supplies may be produced. We need not inform the reader of this article, that the high expectations, thus early raised in regard to the cultivation of the Wild Rice have not as yet been realized; although of late it has attracted some notice, and it is said, some successful attempts at cultivation have been made. It is found growing in the shallow lakes and streams of Michigan, Wisconsin, Iowa, Minnesota, and in the valley of the upper Mississippi and Missouri. It is gathered in large quantities by the Indians, principally by the females, when ripe, which is in September, in the following manner. They first prepare their canoe by cleaning it, and making it perfectly watertight, and then shove it into the field of rice, bending the stalks in handfuls over the side of the canoe, and beat out the rice with paddles." The Wild Rice is found in Massachusetts growing at the edges of our ponds and shallow streams. We have seen it in a brook running into Pleasant Pond in Wenham, in the county of Essex, and in other places. The seeds are blackish, and about three-quarters of an inch long; within, they are white and farinaceous. It would seem by what has been said and written of the valuable properties of the Zizana, that it merits some attention from our farmers, with a view of cultivating it, and although the Wild Rice is strictly an aquatic plant, we see no reason why it may not be cultivated in an upland soil successfully, as it is well-known that many water plants will soon accommodate themselves to a comparatively dry soil, and thrive. Several years since, I received from one of the western States a quantity of the Wild Rice seed, which was procured from an Indian, which was planted in a suitable soil, but they failed to vegetate. The reason of their fail-

ing to come up was probably caused by the seed having been smoked by the Indians, a process used by them in the curing of this grain. This should be guarded against, by those procuring seed to plant. One objection to the cultivation of this plant might be the deciduous habit of this grain, as it drops into the water as soon as ripe. To prevent this waste when cultivated in the water, a lesson might be learned from the Indians, who are in the habit about the time that it begins to turn from its milky state and to ripen, to run their canoes into the midst of it, and tying bunches of it together, just below the ears, with bark, leave it in this situation three or four weeks longer, till it is perfectly ripe. Cultivation might change this habit of dropping its seeds, or the stalks, of the plant could be cut up before it was ripe.

According to Loudon, the Wild Rice has been introduced into England, and grows, as with us, around ponds and streams of water. In the present high prices of all cereal grains, it would seem very important and desirable that we should introduce the Zizana into cultivation, and thus realize the high anticipations of those, who have preceded us. There is another plant which merits attention from our farmers, *viz.* the Mountain Rice, *oryzopsis asperifolia* of Michaux. It is found in Massachusetts, in the interior of the State, but has not been seen to our knowledge on the seaboard. The seeds are white, about as long as rice, and farinaceous. Mr. Pursh says, I observed this grass on the broad mountains of Pennsylvania, and consider it worth the attention of farmers as the considerable large seeds contain the finest flour of any grain I know.

In closing this article I would remark, we have much to expect from the cultivation of any native plant, capable of bearing a valuable grain, by its being perfectly adapted to our climates, and its comparative exemption from diseases incident to the cereal grains of foreign origin. And while the wheat, rye, barley, &c., natives of other countries, are diseased and infested with insects, our Indian corn, a native of America, being at home, delights in our bright sun, and dry atmosphere, and is one of the most healthy plants we cultivate, and remarkably free from blight and diseases. S. P. F.

Danvers-port, Oct. 12, 1855.

THE MONTHLY FARMER.

It is well known to our readers, that we publish a *Weekly* and *Monthly* edition of the *New England Farmer*. The Weekly is in the common newspaper form, printed upon fine, white paper, and on new type. Its first page is always made up of agricultural reading, and the other three pages, of war, political, religious, mercantile, mechanical, manufacturing and miscellaneous intelligence—together with the prices current, carefully corrected, and a few advertisements. This part of the paper is conducted, solely, by William Simonds, Esq., a gentleman of ability, and possessing great experience as a journalist. He resides in the country, but has his business office in Boston.

The *Monthly Farmer* is in Book form, and is made up each month from the agricultural matter on the first page of the weekly paper. Some of the leading characteristics of the *Monthly Farmer* are,

1. It is more valuable than any mere book upon agriculture, because it not only contains the general principles of the great Art, but because it is made up from the latest experiences of practical men upon the soils in our own localities.

2. The elegant manner and convenient form in which it is printed; making a handsome volume for the library when bound. The binding, in muslin, with gilt back and handsomely lettered, will cost but twenty-five cents.

3. The expensive engravings which illustrate the stock, plants, fruits, climbers, flowers, machines, buildings and fences, which are described in its columns.

4. The absence of long catalogues of premiums and programmes, which are only of temporary interest.

5. Its articles spring from leading principles in the art of agriculture, and will, therefore, be as valuable to the inquirer any future year, as at the present time.

6. Its writers are nearly all men of practical acquaintance with the business of the farmer.

7. Some of its writers are men of profound learning in the various arts and sciences, and particularly in chemistry, in its relations to agriculture.

8. The matter which has been collected and printed with so much care, is easily made available by a full and accurate index to the articles and illustrations and names of correspondents; so that any principle which has been discussed, or any fact recorded, may be referred to without loss of time.

These are some of the points which are prominent in the *Monthly Farmer*, and which we know have been appreciated, *for its circulation has more than doubled during the last year!*

WORK, WORK!

I have seen and heard of people who thought it beneath them to work—to employ themselves industriously in some useful labor. Beneath them to work! Why, work is the motto of life; and he who accomplishes the most by his industry is the most truly great man. Aye, and is the most distinguished man among his fellow-creatures and his God—who so forgets the great blessings of life, as to allow his energies to stagnate in activity and uselessness, had better die; for, says the Holy Writ, "He that will work not, neither shall he eat." An idler is a cumberer of the ground, a weariness and a curse to himself, as well as to those around him.

Beneath human beings to work! Look in the artist's studio, the poet's garret, where the genius of Immortality stands ready to seal his works with her ineffaceable signet, and then you will only see industry standing by her side.

Beneath human beings to work! What but work has tilled our fields, clothed our bodies, built our houses, raised our churches, printed our books, cultivated our minds and souls? "Work out your own salvation," says the inspired Apostle to the Gentiles.—*Cornish Banner.*

For the New England Farmer.

LITTLE THINGS:

Or a Walk in My Garden.....No. 5.

ONIONS.

While gathering a few straggling onions from a large bed sown in the spring, I was led to inquire what can be done to get rid of the onion maggot. It is but seldom that a crop can be obtained in this vicinity. I tried one experiment of digging the earth entirely away from the bulb and allowing the stock to lie on the ground till the ravages of the worm were over. The hot sun was too much for them. But this is a tedious process. When a boy, I remember of seeing a succession of bountiful crops of onions raised on a bed where charcoal had been made. I want to wander a few moments from the garden to say a word respecting

CHARCOAL AS A MANURE.

The value of charcoal, in most cases, is usually set too high, at the expense of other substances. The old method of piling together twenty or thirty cords of hard wood, and covering it with turf and trenching the ground all around, not only furnishes charcoal, but what is of more value, an abundance of potash, soda, lime and phosphorus. Hence, great crops of wheat may be raised under such circumstances. A recent correspondent of the *Farmer* tells us how to burn up pine stumps on the ground. I will tell him of a method I once practised, from an article which I read in my boyhood from the *old N. E. Farmer*, which was, to dig a hole under the body of the stump and let it dry, put in some small wood, and before the fall rains bank it up as a coal pit, and set it on fire. It would coal out the body of the stump and render it easy to remove the roots. We always expected to raise huge potatoes on these spots.

Returning to the garden, I find myself looking at

AN EVERGREEN HEDGE.

Thousands of evergreens perish for want of a little knowledge in their management. The safest way is to transplant, from an open pasture, trees not more than two feet in height. My method is this; I take an old axe which I am not afraid to strike into the ground, and cut a circle round the tree, striking two or three times in the same place if necessary, and at a distance of a foot or more from the trunk; let one person take hold of the trunk close to the ground, and another higher up, and remove earth and all. An evergreen is worth nothing after the earth is removed. With two boys, I have in this way dug and carried in a cart three-fourths of a mile, seventy-five trees, and transplanted them in one half-day; and all but two or three lived, and grew about as well the first summer as if they had not been removed. There is a little secret to be learned in setting out a hedge. Instead of making a long trench first, I take off the turf and lay it one side, and then dig deep enough to set one tree, dig up the earth from the spot where the next tree is to be planted and use it to cover the roots of the preceding one. In this way there is no loss of earth in the grass, and you have ready access to every part of the tree. Evergreens will do better planted in grass land, or in the shade of other trees, where the intense heat of the sun is absorbed. It is almost impossible to make an evergreen live on the sunny-side of a white house, or on a very dusty street.

Persons from Massachusetts who wish for such trees, should send to some friend in Maine and request them to put them up in hogsheads, dug up in the way I have proposed, and they will nearly all live. Fifty trees, perhaps, might be packed in a hogshead at a trifling expense, and transported to any part of the State perfectly fresh. In regard to the time of transplanting, late in the fall, or early in the spring, are the only safe seasons. Planting them in clumps, so that they will shade each other, will ensure more complete success. The effect is more pleasing as an ornament than from a straight hedge. N. T. T.

Bethel, Me., Nov. 1, 1855.

VALLEY OF THE YO-SEMITY,

AND ITS STUPENDOUS WATERFALLS.

The *Mariposa* (California) *Gazette* has published a communication from a Mr. J. M. Hutchings, who visited this valley in company with Messrs. Ayres and Millard, two gentlemen belonging in San Francisco, and Mr. Stair, of Coulterville. Assuming that these gentlemen are known to the editors of the *Mariposa Gazette*, and that the account is therefore reliable, we cannot but regard with wonder and admiration the scenery described. The party appears to have started from an Indian village on the Fresno with two Indian guides, and the writer says:—

"From Mr. Hunt's store we kept an east-of-north course up the divide between the Fresno and Chowchillah valleys; thence, descending toward the south fork of the Merced river and winding around a very rocky point, we climbed nearly to the ridge of the middle or main fork of the Merced, and, descending toward the Yo-Semity valley, came upon a high point clear of trees, whence we had our first view of this singular and romantic valley; and as the scene opened in full view before us, we were almost speechless with admiration at its wild and sublime grandeur.

"On the north side stands a bold perpendicular mountain of granite, shaped like an immense tower. Its lofty top is covered with great pines that, in the distance, seem like shrubs. Our Indian guides called this the 'Capitan.' It measures from the valley to its summit two thousand eight hundred feet.

"Just opposite this, on the south side of the valley, our attention was attracted by a magnificent waterfall about seven hundred feet in height. It looked like a long broad feather of silver depending over a precipice; and, as this feathery tail of leaping spray thus hung, a slight breeze moved it from side to side, and, as the last rays of the setting sun were tinging it with rainbow hues, the red would mix with the purple, and the purple with the yellow, and the yellow with the green, and the green with the silvery sheen of its whitened foam as it danced in space!

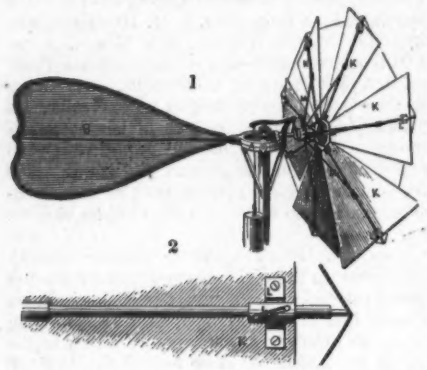
"Passing further up the valley, we were struck with the awful grandeur of the immense mountains on either side, some perpendicular, and some a little sloping. One looks like a light-house, another like a giant capital of immense dimensions; all are singular and surmounted by pines.

"We crossed the river, and, still advancing up the valley, turned a point, and before us was an indescribable sight—a waterfall two thousand two hundred feet in height, the highest in the world.

It rushes over the cliffs, and, with one bold leap, falls one thousand two hundred feet, then a second of five hundred feet, then a third of over five hundred feet; the three leaps making two thousand two hundred feet.

"Standing upon the opposite side of the valley and looking at the tall pines below, the great height of these falls can at a glance be comprehended.

"About ten miles from the lower end of the valley there is another fall of not less than fifteen hundred feet. This, with smaller falls and a lake, mark the head of the Yo-Semity valley, which is, therefore, about ten miles in length and from a half to one mile in width. Although there is good land enough for several farms, it cannot be considered upon the whole as a good farming valley; but speckled trout, grouse and pigeons are plentiful."



THE VERMONT WIND-MILL.

INVENTED BY A. P. BROWN, OF BRATTLEBORO', VT.

The advantage of using wind in preference to horse or steam-power has not been duly appreciated by farmers and mechanics. All the difficulties in using wind-power to advantage are overcome in the mill above represented. It is ingenious, simple, and a most perfect regulator of its own motion. It spreads a wide sail to light breeze, and a small surface to a heavy one. An accelerated motion is checked by the action by the mill itself as readily as the steam-engine is checked by the action of *Watt's centrifugal governor.*

Its construction will be readily understood by reference to the engraving. The radical feature in which this machine differs from others is simply this: it governs the obliquity of its own fans, *k*, to the wind by means of the centrifugal force of those fans. Each is furnished with a helical or spiral slot and pin, made fast in the arm, as seen at *i*, fig. 2. In case of acceleration, the tendency of the fans is to overcome a suitable coiled spring, or a weighted lever, and to move farther out on their respective arms, and in so doing the spiral groove, or slot, slides on the pin and turns the fan more and more edgewise to the wind, presenting *less* surface. When the velocity of the wheel is diminished, the spring or weight immediately draws the fans in an opposite direction, and the same slot and pin turn them more to the wind, always adjusting itself to the necessities of the occasion.

FARMERS and others in want of a cheap motive power, should look to the inducements offered of putting up wind-mills upon their farms or premises. It may be used very economically to pump water for irrigating or draining land, watering cattle, or for household purposes to the tops of houses. It may be used, and will operate very satisfactorily, to thrash and clean all kinds of grain, to shell corn, and grind wheat, rye, corn, or any other thing to be ground, cut, or mashed, such as apples, roots, vegetables, etc. It is particularly adapted to churning, working butter, washing, turning grindstones, sawing wood, cutting straw, and stalks, or fodder. It will bore and mortise timber, drive small saw-mills, lath-machines, turning-lathes, etc. etc., and if you wish, it will ventilate your house exceedingly well. It will not plow, harrow, cultivate, or mow, but any work which can be brought to it may be performed; and it will perform readily, without waiting to be caught, fed, or harnessed. The only food these mills require is about one gallon of oil a year.

They do not require as much nursing and attention as horses or oxen, one coat of paint will keep them clean and beautiful a year or more. The attachments used to connect them to different machines, so as to do different kinds of work, cost less than the harness and equipage of horses, and will last more than twice as long. The expense for repairs is much less than that for the shoeing and preparing of teams for labor. The same amount of power costs less, and the wind power will not die. Wind-mills will work by night as well as by day, and will run steadily without a driver. They are generally ready to work the greatest number of hours when their work is most needed, viz., in the fall, winter, and spring. They do not regard the ten-hour system, but work early and late, summer and winter.

Any particular information concerning these mills may be obtained of FOWLER AND WELLS, 308 Broadway, New York, who are manufacturing ten different sizes, ranging from $35 to $350 each.

GRANITE DUST, A RICH LAND MANURE.—While at Northbridge, Mass. on Wednesday of last week, examining the granite quarries at that place, I had a conversation with the workmen, engaged in dressing out that stone, and inquired of them in reference to the effect of the *fine dust* upon vegetation when thrown on the ground. They informed me that its effect upon grass was astonishing, and that it has been used in gardens with great success. This is a very important fact in agricultural science. Granite is composed of felspar, mica, and quartz, and the felspar contains about fourteen per cent. of potash. In my researches in New Hampshire I found a very great abundance of felspar. It is easily reduced to an impalpable powder by means of a

portable iron mill, such as is made by Mr. Bogardas of New York. The cost will be trifling. The discovery, if carried into operation to the extent that it may be, may make New Hampshire one of the richest agricultural States in the Union, and I take great pleasure in making it public.—*Portsmouth Journal.*

NEW BOOKS.

The MUCK MANUAL, by SAMUEL L. DANA, of Lowell: a new edition, with an additional chapter on "bones, superphosphate of lime, and its preparation." We have often spoken of this work as of importance to all who cultivate the soil.

The general subjects discussed are—Geology of soil; chemical constitution of rocks and soils; the elements of soil, their properties and chemical action; the organic constituents of soil; the mutual action of the organic and inorganic elements of soil; manure; artificial manures and irrigation; physical properties of soil, and bones; superphosphate of lime, and its preparation. Price $1,00.

The RABBIT FANCIER, by C. N. BEMENT, Albany. This is a treatise upon the breeding, rearing, feeding, and general management of Rabbits; with remarks upon their diseases and remedies. An admirable way to interest children is to supply them with a pair of these pretty animals, where the situation will allow of their being kept, and then they will need the Rabbit Fancier to teach them the true course of management. Handsomely illustrated. Price 50 cents.

The VINE-DRESSER'S MANUAL, by CHARLES REEMERLIN, of Ohio. This work, of 103 pages, gives minute directions for the choice of location and soil, preparation of the ground, kind of grapes to cultivate, trellis work, trimming, gathering, manuring, and wine-making. Price 50 cents.

The STABLE BOOK, by JOHN W. STEWART, veterinary surgeon, Glasgow, with notes and additions, adapting it to American food and climate, by A. B. ALLEN, Editor of the *American Agriculturist.* Illustrated with twenty-three engravings. An excellent work for any who use the horse. Price $1,00.

All these works are issued by SAXTON & Co., Agricultural publishers, N. Y. They are handsomely printed and bound, and for sale by S. R. Whipple & Co., and Ruggles, Nourse, Mason & Co., Boston.

INSTRUCTION IN AGRICULTURE.—In the kingdom of Prussia there are five Agricultural Colleges, and a sixth is about to be opened; in these are taught by both theory and practice, the highest branches of science connected with the culture and improvement of the soil; of Agricultural schools of a more elementary order, there are ten; there are also seven schools devoted to instruction in the culture of flax; two specially devoted to instruction in the management of meadow lands; one for instruction in the management of sheep: and there are also forty-five model farms, intended to serve in introducing better modes of agriculture; in all, seventy-one public establishments for agricultural education, not to mention others of a kindred nature, or those private schools where the art and science of good farming are taught.

Prussia is a monarchy, with fifteen millions of people. New York is a republic, with three millions, and a territory, which, though not quite half as large, is richer and better situated, with means of transportation incomparably superior. Prussia has seventy-one public establishments to instruct her people in farming, the science of sciences, and the art of arts. New York has not one; and the proposition to establish a single Agricultural College has again and again been voted down in her Legislature. Ought so shameful a contrast to exist between that monarchy and this republic.—*Tribune.*

For the New England Farmer.

GREEN CORN FOR SOILING.

In the October number of the *Farmer*, I find that the milk-producing qualities of green corn have been called in question, by one at least, who seems to have had opportunity of testing their value for such a purpose, and that you, Mr. Editor, like the "rest of mankind," are quite confident in your opinion respecting the utility of raising and feeding it for the purpose above mentioned. Your opinion, so far as my knowledge extends, coincides with that of nearly all who have written upon the subject. Our agricultural papers, our patent office reports, together with the oral testimony of many excellent practical farmers, furnish a mass of evidence in favor of using green corn for milch cows, to which individual experience, of an opposite character, can oppose but little weight or influence. And yet I must say, that, so far as my own experience goes, I have found this kind of feed to fall far short of the expectation which its numerous commendations would strictly justify, and have sometimes been inclined to regard it, for producing milk, as almost worthless, and even injurious. That it contains some nutriment, and that cattle may subsist better with than without it, along with a moderate supply of other food, or that it is better, under certain circumstances, than nothing, I do not doubt; but for working cattle, horses, or milch cows, when given in a crude state, I do think it a very poor substitute for good hay or grass. So far as appearances go, very few kinds of food would seem better adapted to produce an abundant flow of milk than this, and such I have expected, in accordance with opinions so generally and confidently expressed, would be the result in my own practice; a result which I have never yet reached, with several years of experience.

An acquaintance of mine, and a careful observer of the habits of cattle, once told me that green stalks should never be fed to cows in the morning, previously to going to pasture, as they would so far injure the animals' appetite for grass, that instead of feeding as they otherwise would, on more nutritious food, they would go and lie much of the day in the shade.

Whether it does satisfy the appetite, without yielding corresponding support, I cannot say, but am inclined to that belief. In its various stages of growth, from that of the tender plant, to the fully grown stalk, green corn—other things being equal, contains, acording to analytical experiment, from eighty-four to ninety-four per cent. of water. It con-

tains as great a per centage of water when nearly full grown, as at any other time; and of course as little solid or nutritious matter as at any other time, unless the saccharine juice with which it is charged possesses that quality, which is quite improbable. Were this juice extracted and fed to the animal alone, it would, doubtless, pine away and die. Nor can it be expected that the small amount of solid, say six to ten per cent. that is consumed along with it, will of itself be sufficient to counteract the deleterious effects of so large a share of juice, and at the same time, keep the animal in a healthy and thriving condition.

At the commencement of feeding stalks, cows will not generally eat much of them, unless they are partly cured, which goes, I think, to show, that the juice which they contain is not, at the time, highly relished by them.

Three years ago I fed seven cows quite liberally, for a month or more, on green stalks. My custom was to feed in the morning, as it was the only convenient time of doing it, and to scatter the stalks over a portion of an adjoining pasture on which they had not of late been fed, so as to give them as clean a place for eating as possible, taking care to give them much more than they would immediately consume, which they would generally finish off in the course of the day. I could not perceive that the stalks made much if any difference in the quantity of milk produced, but the cows continued to give less and less about as the grass failed them, although they continued to consume a proportionably larger amount of stalks. I have this fall made another trial of this kind of feed, and with results less flattering than before. For several weeks I could not conveniently furnish my cows with any but the poorest pasturage, but attempted to make up this deficiency by feeding them what stalks they would eat at night and morning.

But they did not thrive or even hold their own on this kind of keeping, but began to appear gaunt, were dissatisfied with their condition, which they manifested by being cross and ill-natured towards each other, and by a disposition to roam abroad, whenever an opportunity was presented, in quest of something more satisfying. And worse than all, some five or six of the seven cows thus treated, commenced witholding their milk entirely for half the time or more, so that I feared that all, a new milch cow included, would become entirely dry before I could give them a change of feed. Finally I began to practice reform; gave them yellow pumpkins, carrots, cabbages and good rowen feed; but they have not yet, after the lapse of a month, recovered from the effects of *dieting* on green corn! I once kept a horse for a few days on the same kind of food, with the ordinary supply of grain, but as it seemed not to be doing well, I soon discontinued it. The horse drank but very little water during the time it was thus kept, refusing it, some days, entirely.

If the cows were, in like manner, affected by the stalks, as is highly probable, that may account, in part, for their drying. I have, in a few instances, fed ears of corn with the stalks as they were cultivated for a field crop, so as to produce an increase of milk. I would advise those who may have stalks to feed, whether green or dry, not to feed them entirely alone, but with other kinds of feed. Some years since, I fed a yoke of oxen entirely on stalks nearly, or quite through the winter. They *appeared* to be doing well during all this time. They were playful and lively, and their hair was bright, but when put to doing the spring work of the farm, they were greatly deficient in strength and durability.

Thus I have given you, briefly, my experience in part, hoping that a further and more careful examination of the subject, by practical men, may lead to more reliable and satisfactory results. It is very important that something of abundant and rapid growth should be available as a substitute for the ordinary supply of feed in case of drought, but I apprehend that those who may depend almost entirely on green corn for such a purpose, are destined to meet with disappointment. C. Blakely.

Bristol, Ct.

PROSPECTS.

If an increase of business is an evidence of *Success*, we are abundantly assured that our efforts to furnish to the farmer the materials for more thorough and efficient operations upon his lands, and thereby to increase his annual profits, have not failed of their object. New friends have come to us from every quarter, both as subscribers and contributors. The list of the *Monthly Farmer* has more than doubled during the past year, while large additions have been made to the *Weekly*, so that we have the prospect of starting on the new year with a combined edition of some *Twenty-four Thousand* copies. This will enable us to carry out designs long contemplated, of furnishing more and better engravings, and in various ways, of giving the paper a greater value. We have recently expended several hundred dollars for designs and engravings, which will be given from time to time, and which, while they will elegantly illustrate the work, will also add to its practical character.

We have no important changes to announce, with the exception, perhaps, that we may obtain regular contributions from the able pen of Prof. Nash, of Amherst. Each of the Editors will remain at his post, and devote himself to the appropriate duties of his charge, while our numerous and able correspondents will faithfully contribute to the common weal of all.

Such are the encouraging prospects for the year 1856. We have bowed out the Old Year with such grace as we could command, and have buckled on the harness with stout and cheerful hearts for the labors of the New. It is but a matter of "*changing work*" between us, after all. So let us go at it with a will, and make this year what we shall wish it may have been when we have got through it.

War and Agriculture.—The United States army consists of about 10,000 men, and costs $8,525,240 a year. All the result is, a few ragged uniforms, dismantled forts, rusty guns, and still more ragged and rusty characters called *veterans*.

The Illinois central railroad has about the same number of men who, receive from the company, $3,700,000 per annum, and make over one hundred miles of railroad each year.

"THE LITTLE BUSY BEE."

The following is a part of a lecture on the "Habits and Instincts of Bees," delivered before the Philadelphia Spring Garden Institute, during the early part of December, 1854, by the Rev. L. L. LANGSTROTH, of Greenfield, Mass. Mr. L. is the author of a most interesting work on Bees, from which we have occasionally quoted. We do not believe that the Curators of our Lyceums could offer a more attractive and pleasing subject to their audiences than one or two lectures from Mr. L. on this topic. His work, while highly instructive, has at the same time the fascination of a well-wrought novel; and his lectures, delivered in an easy, conversational style, would not fail to be gratifying to any class of hearers.

The honey bee belongs to the class of insects which live in a perfect community; indeed, bees can flourish only when associated in large numbers as a colony. In a solitary state, a single bee would be almost as helpless as a new-born child, and would be unable to endure even the ordinary chill of an autumnal night. If a family of bees is examined before it sends off a new colony in the spring, three different kinds of bees will be found in the hive:—1. One bee of peculiar shape, commonly called the queen bee. 2. A number of large bees, called drones. 3. Many thousands of a smaller kind, called workers, and similar to those which are seen on the blossoms. A large number of the cells will be found filled with honey and bee-bread, while vast numbers contain eggs and immature young—a few cells of unusual size and shape being devoted to the rearing of the young queens.

The queen bee is the only perfect female in the hive, and all the eggs are laid by her. The drones are the males, and so imperfectly developed that they are incapable of laying eggs, and retain the instinct only so far as to give the most devoted attention to feeding and rearing the young. The queen-bee or, as she ought more properly to be called, the mother bee, is the common mother of the whole colony. She reigns, therefore, most unquestionably, by a divine right, as every good mother is, or at least ought to be, in the bosom of her own family. The fertility of the queen bee is very great. She will often lay as many as three thousand eggs in a single day.

As the common bees never attain the age of a single year, a constant succession of young bees must be added to the hive; and therefore, no colony can long exist without the presence of this important insect. She is as absolutely necessary to its welfare as the soul is to the body. The queen bee is treated by the bees as every mother ought to be by her children, with the most unbounded respect and affection. A circle of her loving offspring constantly surrounds her, testifying in different ways their dutiful regard—offering her honey from time to time, most affectionately embracing her with their antennæ, and carefully smoothing her beautiful plumage. In the frontispiece of my treatise on bees I have given an exact representation of the attitude in which they gather around her. If she wishes to travel over the combs, they not only make way for her, but most politely back out of her presence, and ever seem intent on doing all that they can to promote her comfort and happiness. How ought such a beautiful example to put to the blush those undutiful children who treat their mothers with irreverence and neglect, and who, instead of striving with loving zeal to lighten their labors and save their steps, treat them more as though they were servants hired only to wait upon every whim, and humor every caprice.

If the queen is taken from the bees, as soon as they ascertain their loss, the whole colony is thrown into a state of the most intense agitation; all the labors of the hive are at once abandoned; the bees run over the comb in wild despair, and often the whole of them rush forth from the hive in anxious search for their beloved mother. When they return to their now desolate home, by their mournful tones they manifest the deepest sense of their deplorable calamity. Their note at such times is of a peculiarly sorrowful character; sounding something like a succession of wailings on the minor key, and can no more be mistaken by the experienced apiarian or bee manager for their ordinary happy hum, than the piteous moanings of a sick child can be confounded by an anxious mother with its joyous crowings, when overflowing with health and happiness. Even after the bees have recovered from their first distraction of grief, they plainly manifest that some overwhelming calamity has befallen them. Often those that have visited the fields, instead of entering the hive with that dispatchful haste so characteristic of a bee returning to a happy home, linger about the entrance with a dissatisfied look. Their home, like that of a man who is cursed rather than blessed in his domestic relations, is such a melancholy place that they enter it only with reluctant and slow moving steps.

The defence of the colony against numerous enemies, the construction of the combs, the providing of stores, the rearing of the young, and in short, the whole work of the hive—the laying of eggs excepted—is carried on by the industrious workers. There may be gentlemen of leisure in the commonwealth of bees; but most assuredly, there are no such ladies, either of high or low degree. The queen herself has her full share of duties; for it must be admitted that the royal office is no sinecure, when the mother who fills it must superintend daily the proper disposition of some two or three thousand eggs. It is very true that the drones

> "On others' toils in pampered leisure thrive,
> The lazy fathers of the industrious hive."

But then, as a penalty for this exemption from labor, at the close of the summer they are all ignominiously put to death.

Bees sometimes act the part of highway robbers; a number of them will waylay and attack a humble bee, which like an honest trader jogging home with a well-filled purse, is returning with a sack full of honey to his nest. They seize the poor fellow and give him at once to understand that they are determined to have his hard-earned sweets. They do not kill him, for they are much too selfish to endanger their own precious persons; and even if they could take his life without losing their stings—a loss which is always fatal—they would still be unable to extract his treasures from the deep recesses of his honey bag.

They, therefore, begin to bite and tease him after the most approved fashion, all the time singing in his ears, not your money, but "your honey or your

life," till utterly worn out, he delivers up his purse by disgorging his honey from its spacious receptacle. The graceless creatures release him at once, while they lick up his spoil and carry off to their homes.

THE CLOSE OF THE YEAR.

Another of the distinctly marked periods of our existence has now passed away—another of those twelvemonth circles, so filled with alternating hope and fear, and joy, and sorrow, and so diversified in the cares and duties which it has presented as it rolled along, is now numbered with those which have for ages successively gone before it. Many who kindly listened to our suggestions at the close of the last year, can listen now no longer; the ear is dull, the tongue dumb; the eye hath lost its fire, the hand its power. Their Spring, and Summer, and Autumn, and Winter, have come to them, and passed, and they are numbered with that great congregation, which has been called to an existence, where times and seasons are not known. Such is the fiat of Him who has called us and all this great world into existence, and who knows all our emotions, and without whose knowledge a sparrow, even, cannot fall to the ground.

He has ordered all things aright, and acquiescence in His will becomes us all. "Though, at the approach of winter, the country is desolate, and stripped of its most beautiful ornaments, it still presents, to a properly organized mind, the image of happiness. We may say with gratitude, Here we have seen the corn grow, and these dry fields crowned with an abundant harvest; and notwithstanding the orchards and gardens are now deserted, the remembrance of the presents we have received from them, inspires us with joy, though we are exposed to the influence of the north wind."

Nearly all the duties of the Farmer are emblematic of our condition in life. The Spring is full of Hope—Summer of Activity—Autumn of Fruition, and Winter of calm Contentment, and contemplation of a Year or a Life well-spent. "The fruit trees have now shed their leaves; the snows or rains fall in heavy showers; the roads are impaired, and walking abroad is almost impracticable. The man who has no resources in himself murmurs at this change; but the considerate, thinking man contemplates it with satisfaction. The sere leaves and withered grass, moistened by the autumnal rains, form a rich manure to fertilize the land. This consideration, and the sweet expectation of Spring, naturally ought to excite our gratitude for the tender cares of our Creator, and inspire us with a perfect confidence in Him. Whilst the earth has lost its beauty and external charms, and is exposed to the murmurs of those it has nourished and delighted, it has commenced its labors anew, and is busily employed in secret working for future good."

There are rich compensations, then, for these seeming evils. If the sun is obscured, wild winds sweep the earth, and gloom rests upon the hills, how these increase the comforts of the warm hearth, the cheerful fire, the gathered household, and all the dear delights of domestic love! He who has faithfully discharged the duties of the fleeting year, whose mind is established on the principles of truth, will not find the winter one of discontent, but will be able to declare with the poet—

"My minde to me a kingdom is,
Such perfect joy therein I finde."

All the phenomena of nature, with such a mind, may be converted into so many sources of pleasure to us; and if we attend to her procedure it will be found that her most common things and appearances are the most agreeable. So that by contrast, and by investigation, we shall always find enjoyment in the world about us.

Gracefully and gently has waned the dying year, and brought us to the close of those Months, through which we have travelled so peacefully and profitably together. We trust the recollections of them will be pleasant to all, and that they will inspire us to future usefulness in the new duties which will cluster around us, with the in-coming of the new year.

Farewell, then, Year Eighteen Hundred and Fifty-five. Though thou didst bring gray hairs to some,—to youth some sorrows,—to manhood some sharp trials,—and to all, didst mingle some bitterness with the sweet cup of life, yet we will cherish thee as a period of great practical improvement,—a period of success to the tiller of the so and we trust of progress towards higher and holier purposes in all.

Causes of Indigestion.—Doctor Wieting, when lecturing at the Brooklyn Institute, lately, described the manner in which persons destroy their stomachs, and produce indigestion and dyspepsia. A gentleman sits down to dinner, and partakes of a multitude of dishes, each seemingly prepared for the purpose of coaxing the stomach to accept more than it can digest. Being completely loaded, it sets to work to agitate the heap, and put it through the process of digestion. The gentleman then starts for home and sees some seductive looking apples on a stand, which he thinks he should like to eat. He purchases a few and commences to gulp them down. "Halloo!" says the stomach, looking up in alarm, "what are you about there? I have more work than I can attend to already." However, remonstrance is in vain, and with a gripe or two, the stomach goes to work as before. The gentleman next meets with a friend; a glass of wine, a brandy smash, or some other liquid compound is gulped down, aided by some tobacco fumes. Supplies are lowered into the stomach like bales of cotton into the hold of a Mississippi steamer, until the organ, wearied and overburdened, gives up in disgust, and leaves the mass to indigestion, dyspepsia, and its train of accompanying evils. Thus the harmony of the system is destroyed, which might have been prevented by a little prudence and self-denial.